

Board of Governors, State University System of Florida

Request to Offer a New Degree Program

(Please do not revise this proposal format without prior approval from Board staff)

University of West Florida University Submitting Proposal Hal Marcus College of Science and Engineering Name of College(s) or School(s) Data Science Academic Specialty or Field 11.0802 Proposed CIP Code	Fall 2019 Proposed Implementation Term Mathematics and Statistics Name of Department(s)/ Division(s) Master of Science in Data Science Complete Name of Degree
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The submission of this proposal constitutes a commitment by the university that, if the proposal is approved, the necessary financial resources and the criteria for establishing new programs have been met prior to the initiation of the program.

Date Approved by the University Board of Trustees	President	Date
Signature of Chair, Board of Trustees	Date	Vice President for Academic Affairs
Signature of Chair, Board of Trustees	Date	Date

Provide headcount (HC) and full-time equivalent (FTE) student estimates of majors for Years 1 through 5. HC and FTE estimates should be identical to those in Table 1 in Appendix A. Indicate the program costs for the first and the fifth years of implementation as shown in the appropriate columns in Table 2 in Appendix A. Calculate an Educational and General (E&G) cost per FTE for Years 1 and 5 (Total E&G divided by FTE).

Implementation Timeframe	Projected Enrollment (From Table 1)		Projected Program Costs (From Table 2)				
	HC	FTE	E&G Cost per FTE	E&G Funds	Contract & Grants Funds	Auxiliary Funds	Total Cost
Year 1	25	13.75	\$18,104	\$248,931			\$248,931
Year 2	55	30.25					
Year 3	90	49.50					
Year 4	100	55.00					
Year 5	125	68.75	\$6,026	\$414,259			\$414,259

Note: This outline and the questions pertaining to each section must be reproduced within the body of the proposal to ensure that all sections have been satisfactorily addressed. Tables 1 through 4 are to be included as Appendix A and not reproduced within the body of the proposals because this often causes errors in the automatic calculations.

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INTRODUCTION

I. Program Description and Relationship to System-Level Goals

A. Briefly describe within a few paragraphs the degree program under consideration, including (a) level; (b) emphases, including majors, concentrations, tracks, or specializations; (c) total number of credit hours; and (d) overall purpose, including examples of employment or education opportunities that may be available to program graduates.

(a) Master of Science

(b) Data Science

(c) 30 Semester Credit Hours beyond the bachelor's degree

(d) The University of West Florida (UWF) seeks to offer a master's degree program in Data Science (M.S.D.S.) in CIP Code 11.0802. The M.S.D.S. degree program will consist of 30 semester credit hours (SCH) beyond the bachelor's degree. The program will be offered in an online format by the Department of Mathematics and Statistics in UWF's Hal Marcus College of Science and Engineering (HMCSE). All of the face-to-face courses in the degree program will be delivered in a synchronous distance learning format enabling students to participate remotely in the class session.

Students in the M.S.D.S. degree program will learn to extract and communicate meaningful information from data sets and become capable of communicating their findings to facilitate organizations' decision-making. The field of data science is developing rapidly as modern society is producing information at a prolific rate. Data scientists integrate interdisciplinary fields to collect, analyze, and transform large groups of data into meaningful information that can be used to gain insights and make decisions. Effective data scientists are able to identify relevant questions, collect data, find meaning in the collected data, translate results into solutions, and communicate their findings in ways that organizations can use to affect decisions. UWF's M.S.D.S. degree program is designed to train students to utilize fact sets derived from disparate and often unrelated places and aggregate these facts into meaningful information.

Data scientists are employed by a multitude of organizations such as private industries, non-profits, health care, and government agencies. UWF's proposed M.S.D.S. degree program will build on the university's existing strengths in the Hal Marcus College of Science and Engineering. The program curriculum consists of graduate computer science, math, and statistics courses taught by experienced UWF faculty.

The proposed M.S.D.S. degree program aligns well with UWF's mission and strategic priorities to offer more STEM graduate-level programs and to enhance the university's

grant and research productivity. It also supports the Florida Board of Governor's vision to increase the number of degrees awarded in STEM and other areas of strategic emphasis.

- B. Please provide the date when the pre-proposal was presented to CAVP (Council of Academic Vice Presidents) Academic Program Coordination review group. Identify any concerns that the CAVP review group raised with the pre-proposed program and provide a brief narrative explaining how each of these concerns has been or is being addressed.**

UWF presented the Master of Data Science degree program to the CAVP on September 28, 2018. There were no concerns about the proposed degree program presented at this meeting.

- C. If this is a doctoral level program please include the external consultant's report at the end of the proposal as Appendix D. Please provide a few highlights from the report and describe ways in which the report affected the approval process at the university.**

Not applicable this is a not a doctoral degree program.

- D. Describe how the proposed program is consistent with the current State University System (SUS) Strategic Planning Goals. Identify which specific goals the program will directly support and which goals the program will indirectly support (see link to the SUS Strategic Plan on [the resource page for new program proposal](#)).**

The M.S.D.S. degree program aligns with the Florida Board of Governors Strategic Priorities and Goals for 2012-2025:

Increase the Number of Degrees Awarded in STEM and Other Areas of Strategic Emphasis

UWF's proposed M.S.D.S. degree program is in CIP Code 11.0802, a STEM field. The program will directly support the goal of increasing the number of advanced degrees from Florida universities awarded in a STEM discipline and increase the state's base of skilled knowledge workers.

Increase Collaboration and External Support for Research Activity

The proposed M.S.D.S. program will have a positive impact on UWF's research grant and contract opportunities. For example, the National Science Foundation (NSF) has established several funding opportunities for data science research:

- The Transdisciplinary Research in Principles of Data Science (TRIPODS) supports development of data science degree programs. TRIPODS provides \$1,200,000 to \$1,500,000 awards to develop the theoretical foundations of data science through integrated research and training activities.
(https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505347)
- 10 Big Ideas, rewards long-term research and process ideas that identify areas for future investment at the frontiers of science and engineering
(https://www.nsf.gov/news/special_reports/big_ideas/index.jsp).

- Harnessing the Data Revolution provides up to \$10,000,000 awards for eight to eleven awards, for 3 years each
(https://www.nsf.gov/news/special_reports/big_ideas/harnessing.jsp)

Grant and funding opportunities for data science are also available in the private sector. In February 2019, the online real estate database Zillow awarded a \$1,000,000 prize to a group of data scientists who helped improve the company's algorithm and reduce their margin of error. (<https://www.zdnet.com/article/zillow-awards-1-million-to-data-scientists-for-improving-its-zestimate-algorithm/> accessed 2/1/2019).

E. If the program is to be included in a category within the Programs of Strategic Emphasis as described in the SUS Strategic Plan, please indicate the category and the justification for inclusion.

The Programs of Strategic Emphasis Categories:

1. Critical Workforce:
 - Education
 - Health
 - Gap Analysis
2. Economic Development:
 - Global Competitiveness
3. Science, Technology, Engineering, and Math (STEM)

Please see the Programs of Strategic Emphasis (PSE) methodology for additional explanations on program inclusion criteria at [the resource page for new program proposal](#).

The proposed Program fits in the current Programs of Strategic Emphasis category Science, Technology, Engineering, and Math (STEM). The CIP Code for the proposed M.S.D.S. degree program is 11.0802, Data Modeling/Warehousing and Database Administration. Within the category, CIP code 11 lists as follows:

11 Computer and Information Sciences and Support Services (all)

F. Identify any established or planned educational sites at which the program is expected to be offered and indicate whether it will be offered only at sites other than the main campus.

The M.S.D.S. degree program will be offered at UWF's Pensacola campus and will be delivered online and in a blended face-to-face synchronous manner. At this time, there are no plans for offering the program at any other sites.

INSTITUTIONAL AND STATE LEVEL ACCOUNTABILITY

II. Need and Demand

- A. Need:** Describe national, state, and/or local data that support the need for more people to be prepared in this program at this level. Reference national, state, and/or local plans or reports that support the need for this program and requests for the proposed program which have emanated from a perceived need by agencies or industries in your service area. Cite any specific need for research and service that the program would fulfill.

Another term associated with data science is “Big data.” Although there appears to be no standard definition for big data, the Office of Naval Research uses a working definition of big data as “a data set so vast that it stresses the limits of tradition (i.e. relational) databases along four parameters: volume of data; variety of formats, sources, and types; velocity of searches and data retrieval, and veracity of conclusions based on data.”¹ In short, big data is the large pools of data available to be captured, communicated, aggregated, stored, and analyzed and it is now part of every sector and function of the global economy. These big datasets are beyond the ability of typical database software tools to capture, store, manage, and analyze. Data scientists have the technical skills to examine various and vast amounts of data, the critical thinking skills to analyze the data, and the ability to translate their analysis into usable information for organizations.

Worldwide, the tremendous amount of data being generated continues to grow. Companies capture data about their customers, hospitals capture data about their patients, phones capture data, social media captures data, and so on. In 2011, the McKinsey Global Institute, published “Big Data: The next frontier for innovation, competition, and productivity.” The report examines the business and economic possibilities of big data and its wider implications.

“There is strong evidence that big data can play a significant economic role to the benefit not only of private commerce but also of national economies and their citizens. Our research finds that data can create significant value for the world economy, enhancing the productivity and competitiveness of companies and the public sector and creating substantial economic surplus for consumers. For instance, if U.S. health care could use big data creatively and effectively to drive efficiency and quality, we estimate that the potential value from data in the sector could be more than \$300 billion in value every year, two-thirds of which would be in the form of reducing national health care expenditures by about 8 percent. In the private sector, we estimate, for example, that a retailer using big data to the full has the potential to increase its operating margin by more than 60 percent. This estimate does not include big data levers that could reduce fraud, errors, and tax gaps (i.e., the gap between potential and actual tax revenue)” (<https://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/big-data-the-next-frontier-for-innovation>).

On its list titled “50 Best Jobs in America for 2019,” the job search site Glassdoor places Data Scientist at the very top of the list, beating out health care occupations, engineers, and computer occupations (https://www.glassdoor.com/List/Best-Jobs-in-America-LST_KQ0,20.htm internet accessed 1/30/2019).

As an emergent field, data scientists can find job openings under several titles such as:

- Database Administrator
- Mathematician
- Statistician
- Advanced Analytics

¹ “Big Data: Challenges and Opportunities.” *Data Flood: Helping the Navy Address the Rising Tide of Sensor Information*, by Isaac R. Porche et al., RAND Corporation, 2014, pp. 1–6. JSTOR, www.jstor.org/stable/10.7249/j.ctt6wq8rr.9.

- Big Data Architect
- Data Analyst
- Data Scientist

National

The occupation identified with CIP Code 11.0802 is Database Administrator (SOC 15-1141). Two additional closely aligned occupations are Mathematicians (SOC Code 15-2021), and Statisticians (SOC Code 15-2041).

Database Administrators use specialized software to store and organize data, such as financial information and customer shipping records. They make sure that data are available to users and secure from unauthorized access. The typical entry-level education required for Database Administrators is a bachelor's degree.

Mathematicians and Statisticians analyze data and apply mathematical and statistical techniques to help solve real-world problems in business, engineering, healthcare, or other fields. The typical entry-level education required for Mathematicians and Statisticians is a master's degree.

The U.S. Bureau of Labor Statistics lists all three of these SOC-Codes as having faster than average growth and higher than average wages. Statisticians and Mathematicians are the seventh and tenth fastest growing occupations over the 2016-2026 period.

Table 1. *National job growth for graduates with data science skills*

Job Title	Number of Jobs 2017	2016-2026 Job Outlook		Median Pay in 2017	
		Percent	Numeric	Annual	Hourly
Database Administrator	119,500	+11%	13,700	\$87,020	\$41.84
Mathematicians & Statisticians	40,300	+33%	13,500	\$84,760	\$40.75

U.S. Department of Labor Bureau of Labor Statistics, Occupational Outlook Handbook, accessed 01/17/2019

(Database Administrator) <https://www.bls.gov/ooh/computer-and-information-technology/database-administrators.htm>

(Mathematicians and Statisticians) <https://www.bls.gov/ooh/math/mathematicians-and-statisticians.htm>

Table 2. *National wages for graduates with data science skills*

Job Title	SOC-Code	Median Pay in 2017	
		Annual	Hourly
Database Administrator	15-1141	\$89,050**	\$42.81
Mathematician	15-2021	\$104,700	\$50.33
Statistician	15-2041	\$85,160	\$40.94
Computer & Mathematical Occupations	15-0000	\$84,573*	\$40.66
All Occupations	00-0000	\$50,620*	\$18.12

**Mean* annual wage versus the *median* annual wage, calculated at (40 hours x 52 weeks)

U.S. Department of Labor Bureau of Labor Statistics, Occupational Employment and Wages May 2017, accessed 01/17/2019

** The 2017 wages differ slightly between the BLS Occupational Outlook Handbook and the BLS Occupational Employment and Wages web pages.

(Database Administrator) <https://www.bls.gov/oes/2017/may/oes151141.htm>

(Mathematician) <https://www.bls.gov/oes/2017/may/oes152021.htm>

(Statistician) <https://www.bls.gov/oes/2016/may/oes152041.htm>

(Computer & Mathematical) <https://www.bls.gov/oes/2017/may/oes150000.htm>

(All Occupations) https://www.bls.gov/oes/2017/may/oes_nat.htm

Table 3 shows the top industries in which graduates of UWF's M.S.D.S. degree program may find employment. All of these industries pay salaries that exceed the national annual mean wage in 2017 of \$50,620.

Table 3. *Top U.S. industries with the highest levels of employment for M.S.D.S. graduates*

Job Titles	Top Employment Industries	2017 Mean Wages
Mathematicians	Federal Executive Branch	\$112,810
	Scientific Research and Development Services	\$124,100
	Colleges, Universities, and Professional Schools	\$60,380
	Management, Scientific, and Technical Consulting Services	\$120,340
	Architectural, Engineering, and Related Services	\$106,470

	Scientific Research and Development Services	93,590
Statisticians	Federal Executive Branch	\$102,020
	Management, Scientific, and Technical Consulting Services	\$84,880
	State Government	\$62,460
	Insurance Carriers	\$80,680
Database Administrators	Computer Systems Design and Related Services	\$95,920
	Management Companies and Enterprises	\$93,320
	Telecommunications	\$93,080
	Colleges, Universities, and Professional Schools	\$75,800
	Insurance Carriers	\$93,190

U.S. Department of Labor Bureau of Labor Statistics, Occupational Employment and Wages May 2017, accessed 01/17/2019

(Mathematician) <https://www.bls.gov/oes/2017/may/oes152021.htm>

(Statistician) <https://www.bls.gov/oes/2016/may/oes152041.htm>

(Database Administrator) <https://www.bls.gov/oes/current/oes151141.htm>

(All occupations) https://www.bls.gov/oes/current/oes_nat.htm#00-0000

Large employment search firms indicate the growing demand for data scientists. Table 4 below shows search results for “Data Scientist” conducted on January 30, 2019, on three of the largest job search databases. The high number of job openings demonstrate the rapidly expanding opportunities for graduates with these skills.

Table 4. *National and Florida jobs for data scientists*

Search Firm	Keyword search for Data Scientist	National Openings*	Florida Openings*
Glassdoor	https://www.glassdoor.com/Job/data-scientist-jobs-SRCH_KO0,14.htm	25,742	733
Indeed	https://www.indeed.com/q-Data-Scientist-jobs.html	32,620	717
Monster	https://www.monster.com/jobs/q-data-scientist-jobs.aspx	7,721	561

Note: Active job postings as of 1/30/2019. These results may include duplicated job postings.

State

Table 5 below demonstrates Florida's strong demand for Mathematicians and Statisticians will continue for the next ten years. Graduates of UWF's M.S.D.S. degree program will find employment in a high paying, high-growth occupation, benefiting the state and its industries.

Table 5. *Florida Job projections for graduates from the M.S.D.S. program*

Job Title	SOC Code	Employment	Change 2017-2025	2017 Median Hourly Wage
		2017	Mean annual wage	
Database Administrators	15-1141	7,440	\$84,860	\$40.80
Mathematicians	15-2021	100	\$85,900	\$41.30
Statisticians	15-2041	570	\$72,800	\$35.00
All Computer & Mathematical Occupations	15-0000	198,940	\$76,420	\$36.74
All Occupations	00-0000	8,419,030	\$44,790	\$21.53

Source: U.S. Department of Labor, Bureau of Labor Statistics May 2017 state occupational employment and wage estimates, Florida https://www.bls.gov/oes/2017/may/oes_fl.htm#15-0000

Local

Northwest Florida is home to numerous military bases and private defense contractors as well as a variety of companies and government agencies with high-tech needs. Several national corporations that manage large defense contracts have satellite offices in Northwest Florida. The companies shown in Table 6 below have listed openings for individuals with data science skills in their Northwest Florida locations. The job advertisements, with skill descriptions for data scientists and various job titles, are in Appendix F.

Table 6. *Examples of national companies with local (Northwest Florida) job openings for data scientists*

Company Name	Company Description	Job posting in NW FL on 01/30/2019
Capstone Corporation	Capstone Corporation is a leading global services and solutions provider, supporting customers in over 30 states & seven overseas locations.	Business Intelligence Data Analyst IT Business Analyst [1] [1a]
CACI	CACI provides information solutions & services in support of national security missions & government transformation for Intelligence, Defense, & Federal Civilian customers.	Business Systems Analyst [2]
KBRwyle	KBRwyle is a global government services organization delivering full life cycle professional and technical services from over 60 U.S. and 40 international locations. Our core capabilities include logistics, engineering, science, cyber, intelligence & security services.	Data Scientist [3]
Huron Incorporated	Huron is a global consultancy that helps our clients drive growth, enhance performance and sustain leadership in the markets they serve.	Consulting Support Analyst I [4]
ACI Federal	For over 20 years, Team ACI Federal™ has proudly contributed to the mission of our Federal Agencies.	IT Specialist Mid [5]
Solutions3, LLC	The Complete IT Management Solution Solutions ³ is an award-winning consulting and training organization, recognized as a leader in IT Management. We provide full life cycle solutions built upon ITIL® best practices. All of our IT Management solutions take into account People, Process, Technology, and Partners to ensure that all aspects of the solution function together effectively.	Database Engineer [6]
Anonos	Regulation as Competitive Advantage. Big Privacy maximizes Big Data use, value, & sharing by leveraging new global data protection laws.	Project Manager to Support PoC/PoVs [7]

DELTA Resources	At DELTA, we do more than provide technical expertise and operational support to our government partners and commercial customers. We help America's leaders make the best possible decisions for our country's future.	Analyst III [8]
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The Dean of the HMCSE and the Department Chair have been performing outreach to local companies to determine local demand for graduates from the M.S.D.S. degree program. Table 7 below is an example of Northwest Florida organizations that will hire the graduates of UWF's M.S.D.S. degree program. Copies of job advertisements and correspondence are in Appendix G.

Table 7. Northwest Florida organizations that will hire M.S.D.S. program graduates

Company	Type	Job Opening for Data Scientist	Date
Woodlands Medical Specialists	Medical	Data Analyst	1/30/2019 [1]
Baptist Management Services	Medical	Quality Analyst	1/30/2019 [2]
University of West Florida	Higher Education	Data Analyst	1/30/2019 [3]
Ropella Media	Media	Database Administrator & Researcher	1/30/2019 [4]
Navy Federal Credit Union	Finance	Email to Dean of HMCSE	1/23/2019 [5]

- B. Demand: Describe data that support the assumption that students will enroll in the proposed program. Include descriptions of surveys or other communications with prospective students.**

In January 2019, the Dean of HCMSE surveyed students currently enrolled in bachelor's degree programs in the departments of Mathematics and Statistics, Electrical and Computer Engineering, Mechanical Engineering, and Computer Science to determine their potential interest in pursuing an M.S. in Data Science. Of the 94 respondents, 31 students or 33% responded that they would be interested in the new program. In addition to matriculating UWF undergraduates, due to the program being offered online, the Department Chair expects enrollment from international students, out of state students, and working adults seeking career advancement. UWF's M.S. in Mathematics degree program has students from 13 different states and nine students from outside of the U.S.

Table 8. *Student enrollment and number of degrees awarded in the UWF M.S. Mathematics degree program from 2014-2018*

Academic Year	Number of Students Enrolled	Number of Degrees Awarded
2014-2015	115	31
2015-2016	128	40
2016-2017	146	41
2017-2018	151	39

- C. If substantially similar programs (generally at the four-digit CIP Code or 60 percent similar in core courses), either private or public exist in the state, identify the institution(s) and geographic location(s). Summarize the outcome(s) of communication with such programs with regard to the potential impact on their enrollment and opportunities for possible collaboration (instruction and research). In Appendix C, provide data that support the need for an additional program.

Data science is an emergent field and as such, there are no other institutions in the State University System of Florida (SUS) offering a master's degree program in CIP Code 11.0802. Florida Polytechnic offers a bachelor's level program in CIP Code 11.0802.

Three SUS institutions currently offer a master's level program under the name of Data Science or Data Analytics, Florida International University, New College of Florida, and University of Central Florida. A fourth SUS institution, Florida Atlantic University, is in the process of preparing a Request to Offer for a master's degree in Data Science and Analytics.

Table 9. *SUS institutions offering similarly named degree programs*

SUS Institution	CIP Code	Degree Program name	2017 Enrollment	Delivery Mode
Florida International University	11.9999	M.S. in Data Science	8	Blended Face-to-face and online
New College of Florida	11.9999	M.S. in Data Science	22	Face-to-face
University of Central Florida	30.3001	M.S. in Data Analytics	33	Face-to-face

UWF's proposed M.S.D.S. degree program distinguishes itself from the other similarly named programs by offering the program online. The program provides a foundational 21 SCH core of

computer science, machine learning, and statistics with a 9 SCH concentration in either Information Technology, Mathematics, Statistics, Computer Science, or Earth and Environmental Sciences. The 30 SCH degree program does not have a capstone or a thesis requirement, which makes UWF's program more accessible to working adults and distance learners.

UWF's M.S.D.S. degree program has been designed to accommodate graduates from other academic disciplines as well as working adults. Students without a background in computer science, mathematics, or data analysis will complete three courses (Introduction of Statistics, Calculus II, and one programming course such as Python). Faculty members from UWF have been in contact regarding collaboration opportunities with faculty members from UCF's M.S. in Data Analytics degree program (Appendix I).

- D. Use Table 1 in Appendix A (1-A for undergraduate and 1-B for graduate) to categorize projected student headcount (HC) and Full Time Equivalents (FTE) according to primary sources. Generally undergraduate FTE will be calculated as 30 credit hours per year and graduate FTE will be calculated as 24 credit hours per year. Describe the rationale underlying enrollment projections. If students within the institution are expected to change majors to enroll in the proposed program at its inception, describe the shifts from disciplines that will likely occur.**

Table 1-B in Appendix A reflects the initial Year 1 enrollment to be 25 students (13.75 FTE) growing to 125 students (68.75 FTE) by Year 5. The Department of Mathematics and Statistics expects to enroll students who will graduate from other programs in the HMCSE. Along with matriculating students in the Department of Mathematics and Statistics, potential students for the M.S.D.S. degree program will include those in the undergraduate programs of Computer Science, Cybersecurity, Electrical Engineering, Computer Engineering, Mechanical Engineering, and Information Technology.

The UWF Department of Mathematics and Statistics has an established and well-attended master's degree program in mathematics. Over the last four years, the M.S. in Mathematics degree program has experienced a steady enrollment growth of 114 students in fall 2014 to 151 students enrolled in fall 2018, a 30% increase. Because all of the courses in the proposed program will be offered using a blend of face-to face synchronous distance learning and online delivery, the Dean and Department Chair anticipate enrollment numbers in the M.S.D.S. degree program to be similar to the M.S. in Mathematics degree program.

Due to the history of global recruitment for both researchers and students by the UWF Graduate School, the HMCSE, and the Department of Mathematics and Statistics, the Department Chair anticipates UWF's M.S.D.S. degree program will attract graduate students from outside of Florida, both nationally and internationally.

- E. Indicate what steps will be taken to achieve a diverse student body in this program. If the proposed program substantially duplicates a program at FAMU or FIU, provide, (in consultation with the affected university), an analysis of how the program might have an impact upon that university's ability to attract students of races different from that which is predominant on their campus in the subject program. The university's Equal Opportunity Officer shall review this section of the proposal and then sign and date Appendix B to indicate that the analysis required by this subsection has been completed.**

Regarding UWF's proposed M.S.D.S. degree program, no comments were expressed concerning impact on programs at FAMU or FIU during the September 28, 2018, Council of Academic Vice Presidents (CAVP) Program Coordination Work Group conference call.

Consistent with its mission, UWF has admissions policies that balance attention to access, inclusiveness, and quality. In addition, UWF encourages applications from qualified persons and does not discriminate on the basis of age, color, disability, gender (including gender identity and sex), marital status, national origin, race, religion, sexual orientation, or veteran status. Also, UWF's New Academic Program Approval Policy requires that programs appropriately address diversity. Therefore, the university and its degree programs take proactive measures to achieve a diverse student body. Recruitment efforts extend to many geographic regions to attract prospective students.

The proposed M.S.D.S. degree program will be marketed to multiple student segments: students from agencies and industries in UWF's service area, students from other UWF programs, students from other institutions, and students from other countries.

University faculty and staff use multiple outreach methods to ensure diversity and the result has been increased enrollment of women in the HMCSE. One result of UWF's outreach is that the percentage of female students who graduate with a (STEM) Mathematics diploma has averaged 44% over the five-year period 2013-2017 (Figure 1).

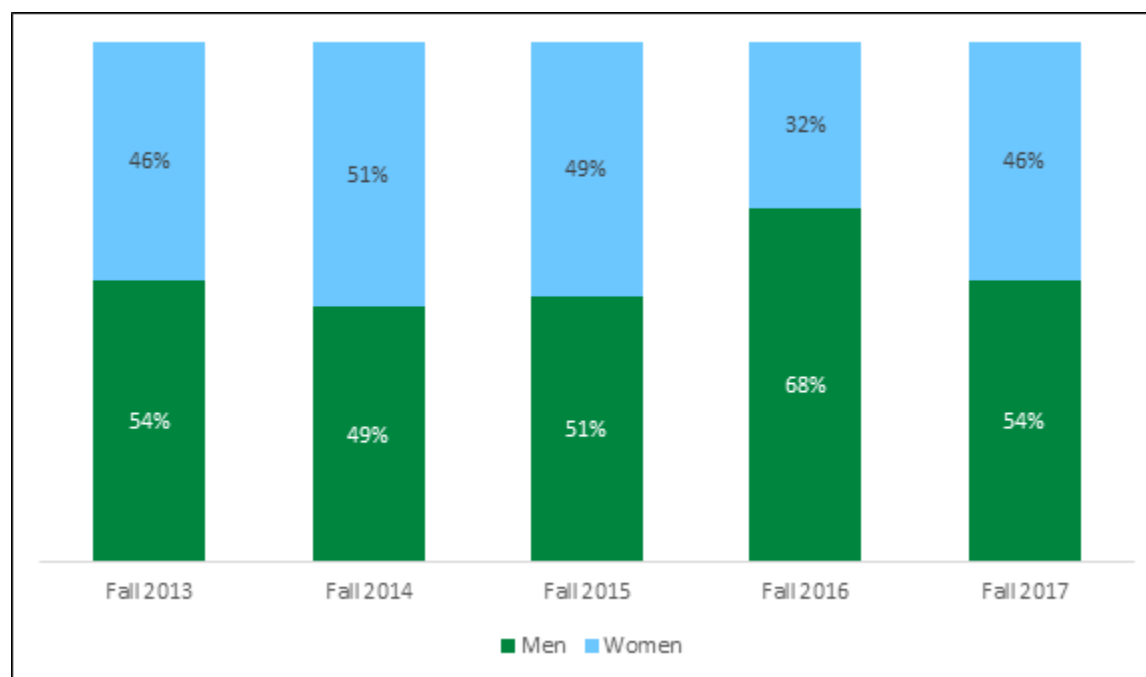


Figure 1. *Five-year view of female graduates of UWF's Mathematics degree programs*

The faculty will showcase UWF's M.S.D.S. degree program and discuss coursework and career goals with all interested applicants. The HMCSE will implement a comprehensive marketing campaign to promote the proposed degree program to the aforementioned student segments. The HMCSE currently attracts a diverse student body to its programs, and program coordinators

anticipate a continued diversity of students in the new degree program (Figure 2).

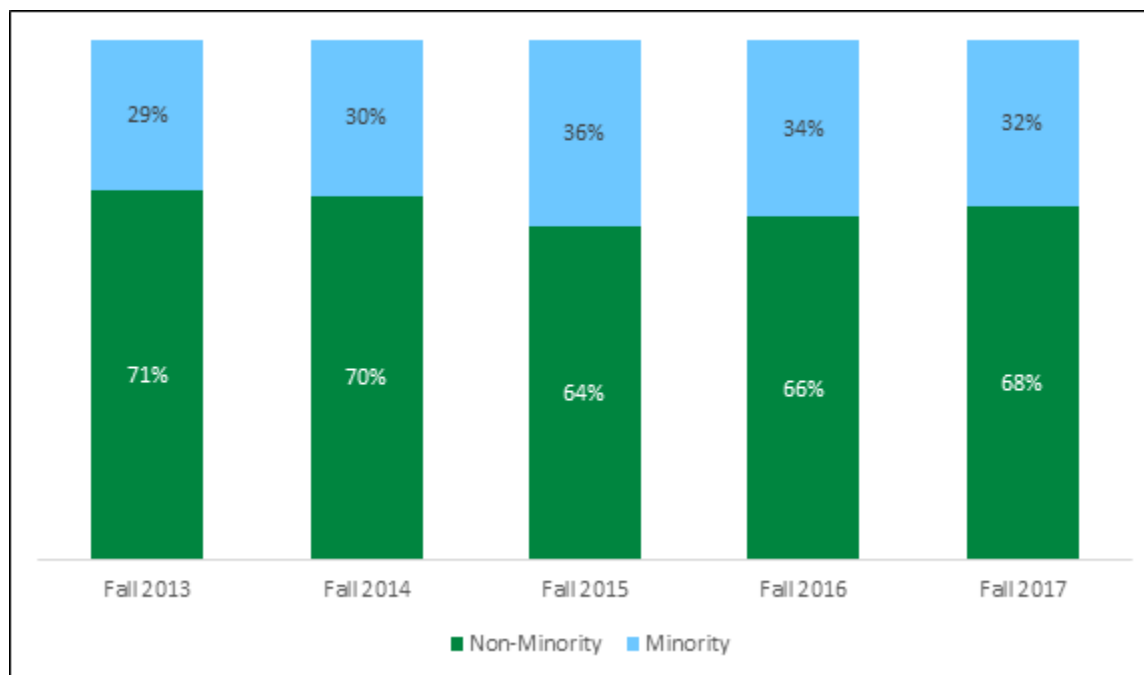


Figure 2. *Five-year comparison of the HMCSE Department of Mathematics and Statistics increasing diversity*

III. Budget

- A. Use Table 2 in Appendix A to display projected costs and associated funding sources for Year 1 and Year 5 of program operation. Use Table 3 in Appendix A to show how existing Education & General funds will be shifted to support the new program in Year 1. In narrative form, summarize the contents of both tables, identifying the source of both current and new resources to be devoted to the proposed program. (Data for Year 1 and Year 5 reflect snapshots in time rather than cumulative costs.)

All expenses from the M.S.D.S. degree program come from E&G funds and will be reallocated from the HMCSE Department of Mathematics and Statistics.

Expected total expenses for Year 1 of the program are \$248,931 from E&G (Appendix A Table 2). The largest item of the Year 1 budget is the apportioned faculty salaries and benefits of \$150,071. The department will use \$70,000 for graduate assistantships, also to be funded from E&G. Table 2 includes \$13,800 to cover one third of the department administrator salary and fringe. The \$15,000 in Expenses is for sundry office supplies and includes a one-time purchase of new server for the program. The Chair of Mathematics and Statistics has communicated with the Library Director who has confirmed there is no need for additional library resources to support the proposed program (refer to Section X.A and B). The Year 1 E&G cost per FTE is \$18,104, which is higher than the SUS average for the CIP Code (11.0802). However, the E&G cost per FTE for Year 5 is \$6,026, below the SUS average.

Expected Year 5 expenses total \$414,259 all from E&G. These expenses will be offset by anticipated increased student enrollment in the program by Year 5. Year 5 expenses are \$182,412 continued faculty salary and fringe increased at a cost of 5% per year. The department administrator salary and fringe at one third FTE increases at the same 5% rate to \$16,847. Due to increased enrollment expectations by Year 5, the program expects to spend \$210,000 on Assistantships. Expenses at one third of the Department of Mathematics and Statistics budget will be \$5,000. The E&G cost per FTE for Year 5 is \$6,026, below the SUS average.

- B. Please explain whether the university intends to operate the program through continuing education, seek approval for market tuition rate, or establish a differentiated graduate-level tuition. Provide a rationale for doing so and a timeline for seeking Board of Governors' approval, if appropriate. Please include the expected rate of tuition that the university plans to charge for this program and use this amount when calculating cost entries in Table 2.**

UWF does not intend to operate the program through continuing education on a cost-recovery basis, seek approval for market tuition rate, or establish differentiated graduate-level tuition. The M.S. in Data Science program will be offered as a regular program through UWF's Department of Math and Statistics.

- C. If other programs will be impacted by a reallocation of resources for the proposed program, identify the impacted programs and provide a justification for reallocating resources. Specifically address the potential negative impacts that implementation of the proposed program will have on related undergraduate programs (i.e., shift in faculty effort, reallocation of instructional resources, reduced enrollment rates, greater use of adjunct faculty and teaching assistants). Explain what steps will be taken to mitigate any such impacts. Also, discuss the potential positive impacts that the proposed program might have on related undergraduate programs (i.e., increased undergraduate research opportunities, improved quality of instruction associated with cutting-edge research, improved labs and library resources).**

UWF expects the benefits of this degree program to the university, region, and state to be significant in terms of advancing research, reputation, and grant opportunities. Because the M.S.D.S. degree program is interdisciplinary, comprised of courses from Information Technology, Mathematics, Statistics, Computer Science, and Earth and Environmental Sciences, it provides enhanced research collaboration opportunities. Being affiliated with a graduate degree program positively affects a faculty's chance of receiving external research funding. Additionally, faculty research productivity will be aided by the program's graduate research assistants, five of whom will be funded in Year 1 and fifteen in Year 5 (Appendix A Table 2).

- D. Describe other potential impacts on related programs or departments (e.g., increased need for general education or common prerequisite courses, or increased need for required or elective courses outside of the proposed major).**

As a master's level program, the M.S.D.S. degree program will have no impact upon general education or common prerequisite courses.

- E. Describe what steps have been taken to obtain information regarding resources (financial and in-kind) available outside the institution (businesses, industrial organizations, governmental entities, etc.). Describe the external resources that appear to be available to support the proposed program.

Faculty in the HMCSE are actively involved in establishing partnerships with the local community to further enhance the university's program offerings, employment and internship options, and develop collaborative opportunities. For example, UWF has been designated as a National Center of Academic Excellence in Cyber Defense Education by the National Security Agency and the Department of Homeland Security. The HMCSE has an Industry Advisory Board comprised of UWF faculty and individuals from local technology firms.

IV. Projected Benefit of the Program to the University, Local Community, and State

Use information from Tables 1 and 2 in Appendix A, and the supporting narrative for "Need and Demand" to prepare a concise statement that describes the projected benefit to the university, local community, and the state if the program is implemented. The projected benefits can be both quantitative and qualitative in nature, but there needs to be a clear distinction made between the two in the narrative.

University benefits

The proposed M.S.D.S. degree program will enhance the current offerings of the University of West Florida as it serves the northwest region of Florida by offering an advanced educational pathway in a STEM field.

The creation of the proposed M.S.D.S. degree program will have clear benefits to the university. It will achieve the following:

- Attract talented students from across the nation and around the world to Florida.
- Enable UWF to meet the demand for graduates with training in a mix of data analysis skills that move them beyond entry level to positions as data scientists in a variety of industries such as banking and finance, education, healthcare, and manufacturing.
- Present opportunities for interdisciplinary research and collaboration within the university.

Northwest Florida

The proposed program will also have clear benefits to the local community. It will achieve the following:

- Provide the local community with talented high-tech graduates who will contribute to the local economy with high-level skills and higher than average wages.
- Encourage interdisciplinary research and grant opportunities with other technology organizations such as the UWF Center for Cybersecurity.

V. Access and Articulation – Bachelor's Degrees Only

- A. If the total number of credit hours to earn a degree exceeds 120, provide a justification for

an exception to the policy of a 120 maximum and submit a separate request to the Board of Governors for an exception along with notification of the program's approval. (See criteria in Board of Governors Regulation 6C-8.014).

Not applicable this is a graduate degree program.

- B. List program prerequisites and provide assurance that they are the same as the approved common prerequisites for other such degree programs within the SUS (see link to the Common Prerequisite Manual on [the resource page for new program proposal](#)). The courses in the Common Prerequisite Counseling Manual are intended to be those that are required of both native and transfer students prior to entrance to the major program, not simply lower-level courses that are required prior to graduation. The common prerequisites and substitute courses are mandatory for all institution programs listed, and must be approved by the Articulation Coordinating Committee (ACC). This requirement includes those programs designated as "limited access."

If the proposed prerequisites are not listed in the Manual, provide a rationale for a request for exception to the policy of common prerequisites. NOTE: Typically, all lower-division courses required for admission into the major will be considered prerequisites. The curriculum can require lower-division courses that are not prerequisites for admission into the major, as long as those courses are built into the curriculum for the upper-level 60 credit hours. If there are already common prerequisites for other degree programs with the same proposed CIP, every effort must be made to utilize the previously approved prerequisites instead of recommending an additional "track" of prerequisites for that CIP. Additional tracks may not be approved by the ACC, thereby holding up the full approval of the degree program. Programs will not be entered into the State University System Inventory until any exceptions to the approved common prerequisites are approved by the ACC.

Not applicable this is a graduate degree program.

- C. If the university intends to seek formal Limited Access status for the proposed program, provide a rationale that includes an analysis of diversity issues with respect to such a designation. Explain how the university will ensure that Florida College System transfer students are not disadvantaged by the Limited Access status. NOTE: The policy and criteria for Limited Access are identified in Board of Governors Regulation 6C-8.013. Submit the Limited Access Program Request form along with this document.

The university does not intend to seek formal limited access status for the proposed program.

- D. If the proposed program is an AS-to-BS capstone, ensure that it adheres to the guidelines approved by the Articulation Coordinating Committee for such programs, as set forth in Rule 6A-10.024 (see link to the Statewide Articulation Manual on [the resource page for new program proposal](#)). List the prerequisites, if any, including the specific AS degrees which may transfer into the program.

The proposed program is not an AS-to-BS capstone.

INSTITUTIONAL READINESS

VI. Related Institutional Mission and Strength

- A. Describe how the goals of the proposed program relate to the institutional mission statement as contained in the SUS Strategic Plan and the University Strategic Plan (see link to the SUS Strategic Plan on [the resource page for new program proposal](#)).**

Our mission at UWF is to:

- Provide high-quality undergraduate and graduate education,
- Conduct teaching and research that services the body of knowledge, and
- Contribute to the needs of professions and society

UWF's proposed M.S.D.S. degree program relates to the university's mission in several ways. The program will build upon the existing strengths of UWF's high-quality graduate Mathematics and Computer Science programs. Experienced faculty members will provide expert knowledge to educate students in the field of data science, expanding students' technical, creative and critical thinking skills. UWF has developed the M.S.D.S. degree program to enhance the pool of highly skilled professionals and researchers who will support economic growth at the regional, state, and national levels.

- B. Describe how the proposed program specifically relates to existing institutional strengths, such as programs of emphasis, other academic programs, and/or institutes and centers.**

The M.S.D.S. degree program will utilize experienced university faculty with a robust history of grant writing, publication, and collaboration. The faculty that will be part of the M.S.D.S. degree program have a record of collaboration across the university. Dr. Anthony Okafor has collaborated extensively with faculty from the Usha Kundu College of Health in grant submissions and publications (see Table 17. Grants Awarded to M.S.D.S. Degree Program Faculty and Table 18. M.S.D.S Degree Program Faculty Publication and Research Productivity). Drs. Sikha Bagui and Dallas Snider teach and produce research along with faculty in the university's Computer Science and Cybersecurity degree programs (see Table 18. M.S.D.S Degree Program Faculty Publication and Research Productivity). UWF has been designated as a National Center of Academic Excellence in Cyber Defense Education by the National Security Agency and the Department of Homeland Security. Collaboration with other academic disciplines will be a cornerstone of the M.S.D.S. degree program.

- C. Provide a narrative of the planning process leading up to submission of this proposal. Include a chronology in table format of the activities, listing both university personnel directly involved and external individuals who participated in planning. Provide a timetable of events necessary for the implementation of the proposed program.**

For the new program, the preliminary planning phase took place during spring and summer of 2018 with the preparation of the program curriculum and internal approval documents. The program was presented to the CAVP work group on September 28, 2018. Preparation of the full Request to Offer a New Degree Program Proposal ensued over the next several months.

Table 10. *Planning process*

Date	Participants	Planning Activity
Feb. 19, 2018	Department Chairs Dr. Jaromy Kuhl, Dr. Thomas Reichherzer, HMCSE Dean Dr. Mike Huggins	Kickoff meeting
Feb. - April, 2018	Graduate Committee meeting	Discussions of curriculum, funding, library and physical assets
April 20, 2018	Interim HMCSE Dean Dr. Jaromy Kuhl, Dr. Jia Liu	Discussions of curriculum, preparation of CAVP and Internal Pre-proposals
June 7, 2018	Vice Provost, Institutional Effectiveness, Department Chair Dr. Jia Liu	Discuss timelines and external deadlines for anticipated start date of Fall 2019
September 2018	Department Chair Dr. Jia Liu	Submit M.S.D.S. degree program curriculum and student learning outcomes to the UWF CCR review system
October 2018 -	College Curriculum Committee and Graduate Council	Modifications to the curriculum
December 17, 2018	Faculty Senate	Approval of the M.S.D.S. degree program curriculum
January 2019	Institutional Effectiveness and Department Chair Dr. Jia Liu	Continue the Request to Offer

Table 11. *Events leading to implementation*

Date	Implementation Activity
September, 28 2018	CAVP Conference call - No concerns
Spring and Fall 2018	Meetings of the Department Chair, HMCSE Dean, and College Curriculum Committee to formulate the proposal, prepare CCRs
May 15, 2019 (anticipated)	Approval of the Proposal by the UWF Board of Trustees' Academic Affairs Committee
June, 19 2019 (anticipated)	Approval of the Proposal by the full UWF Board of Trustees
July 2019 (anticipated)	Approval of the Proposal by the Florida Board of Governors
August, 2019 (anticipated)	Launch Program

VII. Program Quality Indicators - Reviews and Accreditation

Identify program reviews, accreditation visits, or internal reviews for any university degree programs related to the proposed program, especially any within the same academic unit. List all recommendations and summarize the institution's progress in implementing the recommendations.

Pursuant to Florida Board of Governors Regulation 8.015, all academic departments at UWF conduct program reviews every seven years. The program review for the Department of

Mathematics and Statistics was conducted in 2015. The program review noted some of the following strengths

- High enrollment averages and high SCH per faculty.
- Good reputation for effective teaching, especially within subjects that many students dislike.
- Small class sizes relative to most peer universities.
- Each classroom is equipped with the latest technologies.
- Faculty and staff are highly productive.
- Faculty are collaborative and innovative.

As a result of the 2015 program review the following changes were made in the department

- All undergraduate specializations were removed in order to strengthen the undergraduate curriculum.
- New faculty and instructor lines were allocated to the department with some lines dedicated to lower level/general studies courses.
- Successful transition from the former College of Arts and Science to the new Hal Marcus College of Science and Engineering.

VIII. Curriculum

- A. Describe the specific expected student learning outcomes associated with the proposed program. If a bachelor's degree program, include a web link to the Academic Learning Compact or include the document itself as an appendix.

See Appendix C with Academic Learning Plan.

By completing the M.S. in Data Science degree program, students will attain the following competencies:

Content

Identify, formulate, and solve complex data problems by selecting and applying appropriate methods.

Critical Thinking

Students understand the broad impact of data on society and can raise critical questions about data, its interpretation, and visualization, and the methods by which these are produced

Communication

Students can formulate reasonable interpretations of data and share them effectively through visual and narrative means.

Integrity/Values

Recognize ethical and professional responsibilities in data science situations and make informed judgments, which must consider the impact of the solutions in global, economic, environmental, and societal contexts.

Project Management

Students can choose and employ appropriate tools for data collection, storage, manipulation, analysis, visualization, dissemination, and preservation, as relevant to goals, tasks, and users.

B. Describe the admission standards and graduation requirements for the program.

Admission and graduation requirements are available from the University of West Florida Catalog (Appendix E; University of West Florida. (2015). *2015-2016 University Catalog*. Retrieved from <http://catalog.uwf.edu>).

Admission Standards:

In addition to the University graduate admission requirements described in the [Admissions section](#) of the catalog, the applicant must meet the following minimum departmental admission requirements for regular admission to the M.S.D.S. degree program:

Students applying to the M.S. in Data Science degree program must have completed the following courses prior to admission:

- Introduction to Statistics
- Calculus II
- One programming course (such as Python)

If an applicant has a B.S. in Mathematics, Statistics, Computer Science or a related field:

- Minimum Graduate Record Examination (GRE) Verbal score of at least 150 and Quantitative score of at least 150.

The graduate admission test may be waived for the following:

- Must have a B.S. or B.A. degree in a related field with at least a 3.0 GPA.
- If an applicant has a graduate degree in any of the sciences, no GRE is required.
- An applicant may be fully admitted if the student has all required undergraduate proficiency courses.
- An applicant may be provisionally admitted subject to completing the required undergraduate proficiency courses.
- If an applicant does not meet the above requirements, they may be considered for conditional admission. Please contact the department for more information.

With approval from the department, a maximum of six credit hours may be transferred into the program.

C. Describe the curricular framework for the proposed program, including number of credit hours and composition of required core courses, restricted electives, unrestricted electives, thesis requirements, and dissertation requirements. Identify the total numbers of semester credit hours for the degree.

The HMCSE faculty designed the 30 semester credit hour (SCH) M.S.D.S. degree program curriculum to provide a 21 SCH foundational framework develops the student's ability to identify, manipulate, and manage large quantities of data. The concentration area focuses the

student's research interest. The 21 SCH core of the program includes 9 SCH of statistics, 9 SCH of computer science, and 3 SCH of mathematics. The other 9 SCH incorporates a concentration in Information Technology, Mathematics, Statistics, Computer Science, and Earth and Environmental Sciences. Students will meet with their advisors to develop customized areas of concentration based on the student's career goals and expertise. All courses in the concentrations will be offered online.

In addition to matriculating students from science emphasis degree programs, the M.S.D.S. degree program has been designed to accommodate graduates from other academic disciplines as well as working adults. Prior to admission, students without a background in computer science, mathematics, or statistics will complete three courses (Introduction of Statistics, Calculus II, and one programming course such as Python). In certain cases, students may be provisionally admitted. The 30 SCH degree program does not have a capstone or a thesis requirement, which makes the program more accessible to working adults and distance learners.

Table 12. *Proposed M.S.D.S. program curriculum*

Course Number	Course Name	Semester Credit Hours
STA 5176	Statistical Modeling	3 SCH
STA 6235	Modeling in Regression	3 SCH
STA 6707	Multivariate Methods	3 SCH
COP 5725	Database Systems	3 SCH
CAP 5771	Data Mining	3 SCH
CAP 5754	Big Data Analytics	3 SCH
MAP 6001	Machine Learning	3 SCH
Total Core		21 SCH
Electives	<i>See Elective List</i>	9 SCH
Total M.S.D.S. Degree Program		30 SCH

D. Provide a sequenced course of study for all majors, concentrations, or areas of emphasis within the proposed program.

The sequenced courses of study shown in Table 13 reflect minimum semester credit hour requirement of 21 SCH core courses, 9 SCH of elective courses for the M.S.D.S. degree program.

Table 13. *Sequenced course of study for full-time students in the M.S.D.S. degree program*

Year 1		SCH
Fall	STA5176 Statistical Modeling COP 5725 Database Systems	3 3
Spring	CAP 5771 Data Mining STA 6235 Modeling in Regression	3 3
Summer	STA 6707 Multivariate Methods	3
Total		15
Year 2		SCH
Fall	MAP 6001 Machine Learning CAP 5754 Big Data Analytics	3 3
Spring	Elective 1 Elective 2	3 3
Summer	Elective 3	3
Total		15
Total M.S.D.S. Degree Program		30 SCH

E. Provide a one- or two-sentence description of each required or elective course.

Required Core Courses

(Required – all students take these courses for a total of 21 SCH)

STA 5176 Statistical Modeling (3 SCH)

Topics covered include analysis of variance, regression analysis, nonparametric statistics, contingency tables. Students will use matrix algebra to derive some properties of regression diagnostics, in addition to using the method of least squares to derive optimal estimators in linear models.

STA 6235 Modeling in Regression (3 SCH)

Advanced topics in regression, nonlinear regression, influence diagnostics, Eigensystem analysis of $X'X$ matrix, logistic regression, ridge regression, robust regression, and generalized linear models.

STA 6707 Multivariate Methods (3 SCH)

Concepts and methods of Multivariate analysis in order to describe and analyze multivariate data. Multivariate extensions of Chi-Square and t-tests; discrimination & classification procedures; applications to diagnostic problems in biological, medical, anthropological & social research; multivariate analysis of variance; factor analysis and principal components analysis.

COP 5725 Database Systems (3 SCH)

Introduction to database systems and database management system architectures. Various database models are discussed with emphasis on the relational model and relational database design. Case applications using fourth-generation languages, such as SQL are included.

CAP 5771 Data Mining (3 SCH)

Data mining concepts and techniques and different data mining software. Covers data pre-processing and cleaning, concept hierarchy generation, attribute relevance analysis, association rule mining, classification algorithms, and cluster analysis.

CAP 5754 Big Data Analytics (3 SCH)

Stages of handling large data sets in a Big Data Hadoop MapReduce environment. Students also learn Spark architecture and programming with the aim of using big data analytics in combination with machine learning algorithms in Spark. The course also covers concepts of Spark streaming. This course may require completion of graduate foundational courses in computer science or undergraduate coursework in computer programming if a student has insufficient academic or professional experience in the discipline.

MAP 6001 Machine Learning (3 SCH)

Uses interdisciplinary techniques such as statistics, linear algebra, optimization, and computer science to create automated systems that can shift through large volumes of data at high speed to make predictions or decisions without human intervention.

Elective Courses

(Students will take 9 SCH of these courses)

Mathematics electives**MAD 6405 Numerical Analysis I (3 SCH)**

Theoretical treatment of numerical methods of linear algebra supplemented with use of computers; polynomial approximations, uniform approximations, least square approximations, error analysis for numerical solutions of linear equations, algebraic eigenvalue problems.

MAP 5471 Advanced Probability and Inferences (3 SCH)

Advanced topics in probability, limit theorems, limiting distributions, order statistics, weak law of large numbers, strong law of large numbers, central limit theorem. Advanced topics in point and interval estimation, measures of quality of estimates, Exponential families, Completeness, Unbiasedness, Cramer-Rao inequality, Rao-Blackwell theorem, minimum variance unbiased estimators, maximum likelihood estimators principles, Bayes' and minimax estimation, Robust estimation; Advanced hypothesis testing.

Statistics electives**STA 5326 Statistical Inference (3 SCH)**

Advanced course in mathematical statistics. It is more theoretical than an applied statistics course and takes a mathematical approach to problem solving. There will be some "real world" applications of the theory.

STA 6246 Design and Analysis of Experiments (3 SCH)

Further concepts in design and analysis of planned experiments with emphasis on confounding and fractional replications of factorial experiments; composite designs; incomplete block designs; estimation of variance components.

STA 6257 Advanced Statistical Modeling (3 SCH)

This course will cover advanced statistical models, enabling students to model various discrete and continuous outcomes. The focus will be determined by instructor and may include such analyses as generalized linear analysis, nonlinear regression analysis, or spatial cluster analysis. In addition to advanced models, the course will include model constructions, model fit, interpretation of results, and dissemination of results.

Earth and Environmental Science elective**GIS 6105 Spatial Data Management (3 SCH)**

This course begins with the basic theory of database design. It then proceeds on to incorporate spatial data and its unique data management requirements. Students then learn how to extract, transform and load spatial data and its associated attribute data using specific GIS case study workflows. Course includes lecture, hands-on exercises, written reports, and a final project with a presentation requirement.

Computer Science electives**CAP 6772 Data Warehousing (3 SCH)**

The primary focus of this course is on Data Warehousing and its applications to business intelligence. Some areas of concentration are: requirements gathering for data warehousing; data warehouse architecture; dimensional model design for data warehousing; physical database design for data warehousing; extracting, transforming, and loading strategies; introduction to business intelligence; design and development of business intelligence applications; expansion and support of a data warehouse.

COP 6727 Advanced Database Systems (3 SCH)

Advanced topics in database management systems will be covered, for example, further dependencies and higher normal forms, transaction processing, concurrency control, backup and recovery, indexing, replication, managing large databases, and contemporary issues and topics in databases.

Information Technology electives

CTS 5XX1-1 Data Visualization (3 SCH)

Provides students with skills to describe theory and concepts related to efficient and effective display of data. Students will use a variety of tools necessary to prepare and present the factual data in a visually compelling manner. Data Visualization tools have a wide applicability and tools and technologies available today allow students, researchers and other users of data leverage on these tools to empower their presentations.

CTS 5XX1-2 Digital Media Analytics (3 SCH)

Focuses on the processing and analysis of the copious amounts of data generated by digital media. Students will utilize standard programming languages and available software packages to design and implement solutions to acquire, process and analyze data in multiple formats

- F. For degree programs in the science and technology disciplines, discuss how industry-driven competencies were identified and incorporated into the curriculum and indicate whether any industry advisory council exists to provide input for curriculum development and student assessment.**

Based on their research and professional affiliations, faculty in the HMCSE designed the curriculum and student learning outcomes for the M.S.D.S. degree program to be responsive to skills and competencies desired by industries. The curriculum of the computer science and data mining courses were established based on Association for Computing Machinery (ACM) curricula recommendations. (<https://www.acm.org/education/curricula-recommendations>).

- G. For all programs, list the specialized accreditation agencies and learned societies that would be concerned with the proposed program. Will the university seek accreditation for the program if it is available? If not, why? Provide a brief timeline for seeking accreditation, if appropriate.**

Data science is a new field and as yet does not have a specialized accrediting agency. However, there are online resources and associations aimed at the field of data science. The Data Science Association supports the profession with practical resources. The Data Science Association mission statement is “To promote data science to improve life, business and government.” (<https://www.datascienceassn.org/>)

Data Science Society is an online platform for data scientists and others working with data. Data Science Society delivers a variety of trainings and online courses. The platform also hosts a data science blog, a forum, and data sets. (<https://www.datasciencesociety.net>)

- H. For doctoral programs, list the accreditation agencies and learned societies that would be concerned with corresponding bachelor's or master's programs associated with the proposed program. Are the programs accredited? If not, why?**

Not applicable this is a not a doctoral degree program.

- I. Briefly describe the anticipated delivery system for the proposed program (e.g., traditional delivery on main campus; traditional delivery at branch campuses or centers; or nontraditional delivery such as distance or distributed learning, self-paced instruction, or**

external degree programs). If the proposed delivery system will require specialized services or greater than normal financial support, include projected costs in Table 2 in Appendix A. Provide a narrative describing the feasibility of delivering the proposed program through collaboration with other universities, both public and private. Cite specific queries made of other institutions with respect to shared courses, distance/distributed learning technologies, and joint-use facilities for research or internships.

The M.S.D.S. degree program will be available to all students online. Some of the courses will be offered using a blend of face to face and synchronous distance learning. UWF's Engineering and Mathematics and Statistics departments have been very successful in delivering their programs via a synchronous distance learning setting and the faculty are very comfortable and proficient in using the system.

For synchronous delivery, a group of students are in a face-to-face classroom while the distance learning students participate at the same time in the same course over the Internet. WebEx, the synchronous distance learning platform, allows students to listen to live lectures, show examples to instructors, ask questions in real time, and chat with classmates. Online students log-on to the Internet at designated class times. Two-way audio and video enables live interaction between the instructor and the online students.

Due to the interdisciplinary nature of the M.S.D.S. degree program and the opportunity for students to choose electives to tailor their program to their career path, some of the courses will be delivered in the conventional online format. All faculty in these courses are familiar and comfortable with the Canvas Learning Management System.

IX. Faculty Participation

- A. Use Table 4 in Appendix A to identify existing and anticipated full-time (not visiting or adjunct) faculty who will participate in the proposed program through Year 5. Include (a) faculty code associated with the source of funding for the position; (b) name; (c) highest degree held; (d) academic discipline or specialization; (e) contract status (tenure, tenure-earning, or multi-year annual [MYA]); (f) contract length in months; and (g) percent of annual effort that will be directed toward the proposed program (instruction, advising, supervising internships and practica, and supervising thesis or dissertation hours).

The following faculty are shown in Appendix A Table 4:

Raid Amin, PhD
 Subhash Bagui, PhD
 Anthony Okafor, PhD
 Samantha Seals, PhD
 Achraf Cohen, PhD
 Dallas Snider, PhD
 Sikha Bagui, EdD
 Jia Liu, PhD

- B. Use Table 2 in Appendix A to display the costs and associated funding resources for existing and anticipated full-time faculty (as identified in Table 4 in Appendix A). Costs

for visiting and adjunct faculty should be included in the category of Other Personnel Services (OPS). Provide a narrative summarizing projected costs and funding sources.

As shown in Appendix A Tables 2 – 4,

Faculty funding figures for Year 1:

\$150,071 a portion of the salary and fringe for four full-time faculty on existing lines to be reallocated from the HMCSE. The program does not anticipate the need to hire adjunct faculty.

Faculty funding figures for Year 5:

\$182,412 Continuing Base salary and fringe for faculty increased at a rate of 5% per year.

All faculty costs associated with the proposed degree program will come from E&G.

- C. Provide in the appendices the abbreviated curriculum vitae (CV) for each existing faculty member (do not include information for visiting or adjunct faculty).**

The following faculty CVs are in Appendix D Faculty Curriculum Vitarum

Raid Amin, PhD
Subhash Bagui, PhD
Anthony Okafor, PhD
Samantha Seals, PhD
Achraf Cohen, PhD
Dallas Snider, PhD
Sikha Bagui, EdD
Jia Liu, PhD

- D. Provide evidence that the academic unit(s) associated with this new degree have been productive in teaching, research, and service. Such evidence may include trends over time for average course load, FTE productivity, student HC in major or service courses, degrees granted, external funding attracted, as well as qualitative indicators of excellence.**

The M.S.D.S. degree program will be housed in the Department of Mathematics and Statistics in the HMCSE. In academic year 2017-2018, the Department of Mathematics and Statistics had in excess of 300 majors across the undergraduate and graduate programs. Enrollment growth in the department has been strong. The Department of Mathematics and Statistics awarded 50 diplomas in the same time period. Of those diplomas, 39 or 78% were graduate and 11 or 22% were undergraduate. The department anticipates that the proposed graduate degree program will experience positive enrollment numbers and will enhance existing undergraduate program enrollment.

M.S.D.S. degree program faculty, all current UWF full-time faculty, come from the departments of Mathematics and Statistics, Computer Science, and Information Technology. Table 14 displays fall student semester credit hours (SCH) generated by related departments of the HMCSE for academic 2014-2018.

Table 14. *Semester credit hours for the HMCSE departments that will be contributing to the M.S.D.S. degree program*

Level	Department	2014 SCH	2015 SCH	2016 SCH	2017 SCH	4 Year SCH Avg.
Undergraduate	Mathematics and Statistics	10,173	10,441	9,911	9,263	9,995
	Computer Science	5,390	5,068	5,287	4,889	5,137
	Information Technology*				855	855
Graduate	Mathematics and Statistics	705	799	750	809	738
	Computer Science	555	572	625	499	583
	Information Technology**	0	0	0	0	0

*New program in 2017

** Information Technology does not have any graduate programs as of 2018.

Table 15 below, displays fall student semester FTE (Using IPEDS Annualized FTE) generated by related departments of the HMCSE for academic 2014-2018.

Table 15. *FTE generated by the HMCSE departments that will be contributing to the M.S.D.S. degree program*

Level	Department	2013 FTE	2014 FTE	2015 FTE	2016 FTE	2017 FTE	5 Year FTE Avg.
Under-graduate	Mathematics and Statistics	339.75	339.17	348.06	330.89	308.82	333.34
	Computer Science	167.18	177.37	168.13	174.33	161.07	137.62
	Information Technology*					26.73	26.73
Graduate	Mathematics and Statistics	25.72	28.92	32.89	30.67	33.13	30.27
	Computer Science	28.86	25.43	24.63	27.94	22.69	25.91
	Information Technology**						

*New program in 2017

** Information Technology does not have any graduate programs as of 2018

The UWF faculty who will be lending their expertise to the M.S.D.S. degree program are experienced scholars, researchers and teachers. All faculty participate in departmental, college-level, and university-level committees, provide service to the profession as reviewers, and conduct community outreach. Table 16 below displaying M.S.D.S. degree program faculty awards demonstrates that faculty are committed to excellence in their profession.

Table 16. *Example of University of West Florida honors awarded to faculty who will be teaching in the M.S.D.S. degree program*

Faculty	UWF Award	Year
Raid Amin	Teaching Incentive Program Award	2004
	Distinguished University Professor	2014
Subhash Bagui	Teaching Incentive Program (TIP) Award	1999, 2003
	Excellence in Undergraduate Teaching and Advising Award	1999
	Golden Apple Award for Teacher of the year	2000
	Excellence in Undergraduate Teaching and Advising Award	2003
	Distinguished University Professorship	2017
Anthony Okafor	Teaching Incentive Program (TIP) Award	1996
Sikha Bagui	Excellence in Teaching and Advising Award 2012	2012
	Excellence in Undergraduate Teaching and Advising Award	2001, 2003

Additionally, faculty from the departments of Mathematics and Statistics, Computer Science, and Information Technology who will be contributing to the M.S.D.S. degree program are highly productive in pursuit of grant funding. Table 17 reflects four-year grant activity for faculty who will be working in the M.S.D.S. degree program.

Table 17. *Recent grants awarded to M.S.D.S degree program faculty*

Name	Project Title	Amount
Subhash Bagui	Gulf Power “Mathematical proof showing the effect of electric billing determinant correlation on Blank and Gegax methodology” May-Dec, 2017.	\$10,0000
Anthony Okafor	Okafor PI: Memiah, P. Collaborators: Okafor, A., Stone, L., Mbizo, J., & Sutton, M.A. UWF Instructional Technology Enhancement Project award, Office of the Provost, UWF: <i>Enhancing Student High Impact Practices Through Big Data Analysis and Systems-Level Thinking</i> (2018-2020).	\$33,077

	Okafor PI: Sutton, M.A. Collaborators: Bennett, W., Stone, L., Okafor, A., Marten, M., Memiah, P., & Mbizo, J. Center for Research and Economic Opportunity award, UWF: <i>Research Equipment Funding Transdisciplinary Informatics Research with Faculty, Students, and Citizen Scientists</i> (2015-2018).	\$42,900
Dallas Snider	Co-Investigator on “Evaluation of Tools to Measure and Mitigate the Effects of Operational Stress,” a subcontract with prime contractor Florida Institute for Human and Machine Cognition, United States Air Force School of Aerospace Medicine Prime Award FA8650-18-C-6982, October 2018-present, awarded.	\$55,741
	Security and Software Engineering Research Center (S2ERC) research project, “Data Mining for Network Performance Assessment, Phase 2”, sponsored by Northrop Grumman Aerospace Systems, January 2015 – December 2015, awarded.	\$26,985
	Co-Investigator on the Santa Rosa County School District project, “Instructional Evaluation Application”, June 2014 – August 2016, awarded.	\$314,306
Total Grants and Contracts		\$483,009

All M.S.D.S. degree program faculty are actively engaged in research. Table 18, displays faculty publications 2014-2018.

Table 18. *M.S.D.S. degree program faculty publication and research productivity*

Faculty	Project Reference
Raid Amin	Bouso J, Burns J, Amin R, Livingston F, Eldemir O. "Household proximity to water and nontuberculous mycobacteria in children with cystic fibrosis ." Pediatric Pulmonology. (2016). Amin R., DeCesare J., Hans J., Roussous-Ross K., Epidemiological Surveillance of Teenage Birth Rates in the United States, 2006-2012, Obstetrics and Gynecology (The Green Journal, Impact Factor: 5.656) (2017). This article reviewed in FORBES.com on May 9, 2017 in an article by Rita Rubin. Decesare J., Hannah D., Amin R., Postpartum Contraception Use Rates of Patients Participating in the Centering Pregnancy Model of Care Versus Traditional Obstetrical Care, The Journal of Reproductive Medicine (2017). Gorman S, Lee A, Amin R, and Burns J. "Potential adverse consequences of early discharge for newborns who meet American Academy of Pediatrics criteria", Clinical Pediatrics. (2017). [Impact Factor : 0.89] Amin, R. W., Guttman, R. P., Harris, Q. R. and Thomas, J. W. (2018), "Prediction of Vancomycin Dose for Recommended Trough Concentrations in Pediatric Patients With Cystic Fibrosis" The Journal of Clinical Pharmacology. doi:10.1002/jcph. [Impact factor for 2014: 2.475] Raid Amin, Arlene Nelson, Shannon McDougall. "A Spatial Study of the Location of Superfund Sites and Associated Cancer Risk". Journal of Statistics and Public Policy (2018). doi: 10.1080/2330443X.2017.1408439. DeCesare J, Roussous Ross D, Vidrine S, Ashby M, Peterson H . Amin R. Barriers to Tdap Vaccination in Pregnancy: Perspectives from Obstetricians and Patient Infections Disease in Obstetrics and Gynecology. International Journal of Obstetrics and Gynecology, (2018). [Impact Factor: 2.17] Raid W. Amin, Erich Ritter, Bethany A Bonell. "Shark bite rates along the US Gulf coast: a first investigation." Environmental Sciences. (2018) [Impact Factor: 3.243] DeCesare JZ, Ross KR, Vidrine S, Peterson H, Ashby M, Floyd E. and Amin R. (2018) Barriers to Tdap Vaccination in Pregnancy: Perspectives from Obstetricians and Patients. International Journal of Pregnancy & Child Birth 4(1): 00077. DOI: 10.15406/ipcb.2018.04.00077. Raid Amin, Eric Yacko, and Rodney Guttman. Geographic Clusters of Alzheimer's Disease Mortality Rates in the USA: 2008-2012. Journal of Prevention of Alzheimer's Disease. (2018)

Subhash (SC) Bagui	Bagui, S.C. and Mehra, K.L. (2016). Convergence of Binomial, Poisson, and Negative-Binomial to Normal distribution: Moment Generating Function Techniques, <i>American Journal of Mathematics and Statistics</i>, 6(3), 115-121. Chowdhury, M.A., Mandal, S., Ghosh, D.K., and Bagui, S.C. (2017). Optimal Structure (k) Designs for Comparing Test Treatments with a Control, <i>Journal of Statistical Theory and Applications</i>, 16(1), 96-107. Bagui, S.C. and Mehra, K.L. (2017). Convergence of binomial to normal: Multiple proofs, <i>International Mathematical Forum</i>, 12(9), 399-411. Xingang F., Bagui, S.C., and Bagui, S. (2017). "Improving Virtual Screening Predictive Accuracy of Human Kallikrein 5 inhibitors using Machine Learning Models, <i>Computational Biology and Chemistry</i>, 69, 110-119. Bagui, S.C., Fang, X., Kalaimannan, E., Bagui, S., Joseph, S. (2017). Comparison of machine-learning algorithms for classification of VPN network traffic flow using time-related features, <i>Journal of Cyber Security Technology</i>, 1(2), 108-126. Fang, X., Bagui, S., and Bagui, S.C. (2017). Improving virtual screening predictive accuracy of human kallikrein 5 inhibitors using machine learning models, <i>Computational Biology and Chemistry</i>, 69, 110-119. Bagui, S.C. and Mehra, K.L. (2017). Convergence of known distributions to limiting normal or non-normal distributions: An elementary ratio technique, <i>The American Statistician</i>, 71(3), 1-6. McMillan, M., Liebens, J., and Bagui, S.C. (2018). A statistical model for streambank erosion in Northern Gulf of Mexico coastal plain, <i>Catena</i>, 165, 145-156. Bagui, S.C., John, S., Baggs, J., Bagui, S. (2018). A Parallel Implementation of Information Gain Using Hive in conjunction with MapReduce for Continuous Features, PAKDD 2018, <i>LNAI</i> 11154, 1-12. Bagui, S.C., Mishra, A., Compo, J., Nandi, D., Bagui, S. (2018). Quality Analysis of Streaming Audio over Mobile Networks, <i>Transactions on Networks and Communications</i>, 6(6), 1-14.
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Anthony Okafor	Donley, T., King, D., Nyathi, N., Okafor, A., & Mbizo, J., (2018) "Socioeconomic Status, Family Functioning and Delayed Care Among Children With Special Needs", <i>Social Work in Public Health</i>, 33:6, 366-381, DOI: 10.1080/19371918.2018.1504703. Mbizo, J., Okafor, A., Sutton, M., et al. "Complementary and Alternative Medicine Use Among Persons with Multiple Chronic Conditions: Results from the 2012 National Health Interview Survey" ID BCAM-D-18-00772, <i>BMC Complementary and Alternative Medicine</i>, 2018. Ilunga Tshiswaka, D., Donley, T., Okafor, A. et al. "Prostate and Colorectal Cancer Screen Uptake among US and Foreign_born Males: Evidence form the 2015 NHIS Survey" <i>Journal of Community Health</i> (2016). doi:10.1007/s10900-016-0296-1 Mbizo, J., Okafor, A., Sutton, M., "Complementary and Alternative Medicine Use by Normal Weight and Obese Patients with Arthritis or Other Musculoskeletal Diseases: Results from the 2007 NHIS Survey" ID JACM-2014-0390; <i>Journal of Alternative and Complementary Medicine</i>, 2016. Mbizo, J., Okafor, A., Sutton, M., et al. Integrative and Complementary Medicine Use in Adults With Chronic Lower Back Pain, Neck Pain, and Arthritis/Musculoskeletal Diseases" <i>Bioactive Food as Dietary Interventions for Arthritis and Related Inflammatory Diseases</i>, 2018 (In Press).
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Samantha Seals	Frascogna MN, Merkle E, Dowdy K, Seals S. “The Effect of Pediatric Early Warning System Scoring Upon Admission from the Pediatric Emergency Department on Emergency Response Calls,” <i>Pediatric Emergency Care</i>, accepted. Ramsey LH, Graves PE, Sharp KMH, Seals SR, Collier AB, Karlson CW. “Impact of Race, Socioeconomic Status, and Access to Care on Medical and Psychological Outcomes in Pediatric Oncology,” <i>Journal of Pediatric Hematology and Oncology</i>, accepted. Okhomina VI*, Seals SR*, Marshall GD. “Recruitment and Enrollment of African Americans from the Jackson Heart Study into Health Promoting Programs,” <i>Ethnicity and Health</i>, accepted. * indicates co-first authors Okhomina VI*, Seals SR*, Anugu P, Adu-Boateng G, Sims M, Marshall GD. “Adherence and Retention of African Americans in a Randomized Controlled Trial with a Yoga-Based Intervention: The Effects of Health Promoting Programs on Cardiovascular Disease Risk Study,” <i>Ethnicity and Health</i>, accepted. * indicates co-first authors Hyacinth HI, Carty CL, Seals SR, Irvin MR, Naik RP, Burke GL, Zakai NA, Winkler CA, David VA, Kopp J, Judd SE, Adams RJ, Epstein MP, Longstreth Jr WT, Egede L, Lackland DT, Greenberg CS, Taylor H, Manson JE, Howard V, Allison M, Gee BE, Correa A, Safford MM, Arnett DK, Howard G, Wilson JG, Cushman M, Reiner AP. “Association of Sickle Cell Trait With Ischemic Stroke Among African Americans: A Meta-Analysis,” <i>JAMA: Neurology</i>, 2018, 75(7): 802-807. Sorrel J, Bishop CE, Spankovich C, Su D, Valle K, Seals S, Schweinfurth J. “Relationship of Stroke Risk and Hearing Loss in African Americans: The Jackson Heart Study,” <i>Laryngoscope</i>, 2018, 128(6): 1438-1444. Ordemann AG, Hartzog AJ, Seals SR, Spankovich C, Stringer SP. “Is Weight a Predictive Risk Factor of Post-Operative Tonsillectomy Bleed?” <i>Laryngoscope Investigative Otolaryngology</i>, 2018, 3(3): 238-243. Bromfield SG, Booth III JN, Loop M, Schwartz JE, Seals SR, Thomas SJ, Min YI, Ogedegbe G, Shimbo D, Muntner P. “Evaluating Different Criteria for Defining a Complete Ambulatory Blood Pressure Monitoring Recording: Data from the Jackson Heart Study,” <i>Blood Pressure Monitoring</i>, 2018, 23(2): 103-111. Ilunga Tshiswaka D, Seals SR, Raghavan P. “Correlates of Physical Function among Stroke Survivors: An Examination of the 2015 BRFSS,” <i>Public Health</i>, 2018, 155: 17-22.
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Achraf Cohen	A. Cohen, C. Messaoudi , H. Badir. A New Wavelet-Based Approach for Mass Spectrometry Data Classification. In: Zhao Y., Chen DG. (eds) New Frontiers of Biostatistics and Bioinformatics . ICSA Book Series in Statistics. Springer, Cham. 2018. A. Cohen, R. Amin. The Effects of Normal Mixtures and Autocorrelation on the Fraction Non-Conforming. Communications in Statistics - Simulation and Computation,1-13. 2017. A. Cohen, T. Tiplica, A. Kobi. OWave control chart for monitoring the process mean. Control Engineering Practice, Vol. 54, pp. 223-230. 2016. A. Cohen, T. Tiplica, A. Kobi. Design of experiments and statistical process control using wavelets analysis. Control Engineering Practice, Vol. 49, pp. 129-138. 2016.
Dallas Snider	G. Merrill Rice, Dallas Snider, Sabrina Drollinger, Chris Greil, Frank Bogni, Jeffrey Phillips, Anil Raj, Katherine Marco, Steven Linville, “Gender Differences in Dry-EEG Manifestations During Acute and Insidious Normobaric Hypoxia,” <i>Aerospace Medicine and Human Performance</i>, (accepted for publication). G. Merrill Rice, Dallas Snider, Sabrina Drollinger, Chris Greil, Frank Bogni, Jeffrey Phillips, Anil Raj, Katherine Marco, Steven Linville, “Dry-EEG Manifestations of Acute and Insidious Hypoxia During Simulated Flight,” <i>Aerospace Medicine and Human Performance</i>, (accepted for publication). Sarita Mantravadi and Dallas Snider, “Hepatitis C Direct Acting Antivirals and Disruptive Innovation,” <i>Journal of Strategic Innovation and Sustainability</i>, vol. 12, no. 2, 2017, pp. 68-74. Sarita Mantravadi and Dallas Snider, “Online Teaching Overview and Misconceptions: Two Keys of Sustainability in Online Courses and Tools,” <i>Journal of Higher Education Theory and Practice</i>, vol. 17, no. 7, 2017, pp. 106-110. Sarita Mantravadi and Dallas Snider, “Comparing Healthcare Systems of Luxembourg and the United States,” <i>The Journal of Applied Business and Economics</i>, vol. 19, no. 7, 2017, pp. 60-74. G. Merrill Rice, Dallas Snider, Jeffery L. Moore, J. Timothy Lavan, Rich Folga, Thomas B. VanBrunt, “Evidence for –Gz Adaptation Observed with Wearable Biosensors during High Performance Jet Flight,” <i>Aerospace Medicine and Human Performance</i>, vol. 87, no. 12, December 2016. G. M. Rice, T. B. VanBrunt, D. H. Snider, R. E. Hoyt, “Wearable Accelerometers in High Performance Jet Aircraft”, <i>Aerospace Medicine and Human Performance</i>, vol. 87, no. 2, 2016, pp. 102-107. Dallas Snider, John Coffey, Thomas Reichherzer, Norman Wilde, Chris Terry, Joe Vandeville, Allison Heinen and Sarah Pramanik, "Using Concept Maps to Introduce Software Security Assurance Cases," <i>CrossTalk: The Journal of Defense Software Engineering</i>, vol. 27, no. 5, 2014.

Sikha Bagui	Bagui, S., and Nguyen, L. (2015). Database Sharding: To provide fault tolerance and scalability of Big Data on the Cloud, <i>International Journal of Cloud Applications and Computing (IJCAC)</i>, Vol. 5(2), 36-52. Fridge, E., and Bagui, S. (2016). Impact of Automated Software Testing Tools on Reflective Thinking and Student Performance in Introductory Computer Science and Programming Classes, <i>International Journal of Information and Communication Technology Education (IJICTE)</i>, 12(1), 24-40. Bagui, S., Bagui, S. and Hemasinha, R. (2016). The Statistical Classification of Breast Cancer Data, <i>International Journal of Statistics and Applications</i>, 6(1), 15-22. Bagui, S., Xingang, F., Kalaimmanan, E., Bagui, S., and Sheehan, J. (2017). Comparison of Machine Learning Algorithms for classification of VPN and non-VPN Network Traffic Flow Using Time-Related Features, <i>Journal of Cyber Security Technology</i>, 1(2), 108-126. Xingang F., Bagui, S., and Bagui, S. (2017). "Improving Virtual Screening Predictive Accuracy of Human Kallikrein 5 inhibitors using Machine Learning Models, <i>Computational Biology and Chemistry</i>, 69, 110-119. Dickinson, R., Perry, S., and Bagui, S. (2016). Using rotation transformations to maximize the coefficient of determination in simple linear regression models, <i>European Journal of Mathematics and Computer Science</i>, 3(1), 66-78. Cox, A., Guzman, I., Crommer, K., Bagui, S. (2017). Virtual world, Virtual Reality, and Augmented Reality: Different Types, Different Users, Different Purchase Intentions, <i>Journal of Virtual Worlds Research</i>, 10(1), 1-21. Bagui, S. and Devulapalli, K. (2018). A Comparison of Hive's Optimization Techniques, <i>International Journal of Big Data Intelligence (IJBDI)</i>, 5(4), 243-257. Bagui, S., and Spratlin, S. (2018). A Review of Data Mining Algorithms on Hadoop's MapReduce, <i>International Journal of Data Science</i>, 3(2), 146-169. Bagui, S., John, S., Baggs, J., Bagui, S. (2018). A Parallel Implementation of Information Gain Using Hive in conjunction with MapReduce for Continuous Features, PAKDD 2018, LNAI 11154, 1-12. Bagui, S., Mishra, A., Compo, J., Nandi, D., Bagui, S. (2018). Quality Analysis of Streaming Audio over Mobile Networks, <i>Transactions on Networks and Communications</i>, 6(6), 1-14.
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Jia Liu	J. Liu, L. Wu and X. Fang, Using Python to Solve the Navier-Stokes Equations-Applications in the Preconditioned Iterative Methods, volume 7, Journal of Scientific research and report, 2015, DOI : 10.9734/JSRR/2015/17346. L. Wu, S, Wei, J. Liu and Y. Li, Discovering Geometric and Topological Properties of Ellipsoids by Curvatures, British Journal of Mathematics and Computer Science, volume 8, 2015. DOI : 10.9734/BJMCS/2015/17178 L. Wu, J. Liu and Y. Li, Exploration of Calculus Teaching and Calculus Assessment through Artwork, International Journal of Applied Research, 2015; 1(8): 731-135. J. Liu, An efficient iterative solver for different incompressible flows. International Journal of Development Research, Vol 06, Issue 06, pp 8073-8076, June, 2016. (IF: 4.753) L. Wu, J. Liu and Y. Li, Discovering Liouville-type Problems for p-Energy Minimizing Maps in Closed Half-Ellipsoids by Calculus Variation Method, World Academy of Science, Engineering and Technology International Journal of Mathematical, Computational, Physical, Electrical, and Computer Engineering, vol 10, no 10, 2016, pp 496-502. J. Uvah, J. Liu and L. Wu. A Robust Preconditioned Iterative Method for the Navier-Stokes Equations with High Reynolds Numbers , Applied and Computational Mathematics 2017; 6(4): 202-207 doi: 10.11648/j.acm.20170604.18 Wu, L. , Li, Y. , Liu, J. Applying p-Balanced Energy Technique to Solve Liouville-Type Problems in Calculus, World Academy of Science, Engineering and Technology, International Science Index 138, International Journal of Mathematical, Computational, Physical, Electrical and Computer Engineering, 12(6), 90 - 95. 2018
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X. Non-Faculty Resources

- A. Describe library resources currently available to implement and/or sustain the proposed program through Year 5. Provide the total number of volumes and serials available in this discipline and related fields. List major journals that are available to the university's students. Include a signed statement from the Library Director that this subsection and subsection B have been reviewed and approved.**

UWF currently offers B.S. and M.S. programs in Mathematics, B.S. and M.S. programs in computer sciences, and a graduate certificate program in Data Science through the Department of Computer Science. In support of the M.S.D.S. degree program, the library is equipped to provide similar resources and services for this proposed program, including resources that support the interdisciplinary nature of data science.

The libraries shelve more than 800,000 print volumes and house an extensive microforms collection. Electronic resources include more than 160,000 e-books and access to approximately 80,000 journals and other serial titles through a discovery system. An analysis of holdings in relevant Library of Congress classifications for data science indicates that UWF has approximately 6,300 books related to data science and 13,000 books in data science-related

fields. The library also provides access to over 1,000 peer-reviewed e-journals in computer science, math, and technology, as well as titles that support the interdisciplinary nature of data science.

Specialized indexing, abstracting, and full-text databases relevant to data science include the ACM Digital Library, Applied Science & Technology Source, Inspec, IEEE Xplore, Telecommunications (ProQuest), and MathSciNet. More general databases supporting data science are Web of Science, Science Direct, and ABI/INFORM Global. Full-text dissertations and theses are available through ProQuest Dissertations and Theses. Using their Argonet accounts, students and faculty may access electronic resources anytime from any place.

Current library resources available to implement the proposed M.S in Data Science through year 5 include:

Databases

- ABI/INFORM Trade & Industry
- ACM Digital Library
- Applied Science & Technology Source
- Business Source Complete
- Computer Science Collection (ProQuest)
- Engineering Collection (ProQuest)
- Engineering Village
- IEEE Xplore
- Inspec
- Telecommunications (ProQuest)
- Dissertations and Theses (ProQuest)
- Florida Statistical Abstracts
- PubMed
- ScienceDirect
- Web of Science

Major Journals (Peer-Reviewed)

- *ACM Transaction on Information Systems* (Full text access 1983-Present through ACM Digital Library)
- *ACM Transaction on Computer Systems* (Full text access 1998-Present through ACM Digital Library)
- *ACM Transactions on Knowledge Discovery from Data* (TKDD) (Full text access 2007-Present through ACM Digital Library)
- *The American Statistician* (Full text access 1998-Present through Taylor & Francis)
- *Data Mining and Knowledge Discovery* (Full text access 1997-Present through SpringerLINK)
- *Decision Analytics* (Full text access 2014-Present through ABI/INFORM Global)
- *Foresight* (Full text access 2003-Present with 1 year delay through ABI/INFORM Global)

- *International Journal of Data Science and Analytics* (Full text access 2016-Present through Springer Nature)
- *Journal of Data Mining and Digital Humanities* (Full text access 2014- Present through DOAJ)
- *Journal of Forecasting* (Full text access 1997-Present through Wiley Online)
- *Machine Learning* (Full text access 1997-Present through SpringerLINK)
- *Statistical Analysis and Data Mining* (Full text access 2008-Present through Wiley Online Library)

Each academic discipline is assigned a Reference Librarian to serve as a department liaison, providing library instruction, collection development, and reference assistance for the students and faculty in that discipline. To support the needs of online learners, students may also schedule a research consultation with their liaison via e-mail, online chat, telephone, or in person.

The library provides an Online Learners Library Guide (<http://libguides.uwf.edu/online>) outlining services and resources that support the increasing number of online learners. The library has also been responsive to the needs of clients who prefer to work from home. In addition to being able to access databases and materials in full-text online, UWF students and faculty may also take advantage of these online library services:

- Read course-required readings on electronic reserves
- Request books and articles from Interlibrary Loan
- Request Intercampus Loan (to/from the Fort Walton Beach instructional site library)
- Renew books
- Submit a reference question via text, email, or chat
- Request priority cataloging of an item that is on order
- Suggest the purchase of a particular book or journal
- Request an item to be recalled for use
- Have UWF and Interlibrary Loan books delivered to your home address if you live over 50 miles from campus

B. Describe additional library resources that are needed to implement and/or sustain the program through Year 5. Include projected costs of additional library resources in Table 2 in Appendix A. Please include the signature of the Library Director in Appendix B.

The library services and resources currently available are adequate to support the M.S.D.S. degree program through Year 5. Furthermore, UWF Libraries' current holdings are competitive when compared to the resources available at other institutions with similar programs. No additional resources are recommended.

C. Describe classroom, teaching laboratory, research laboratory, office, and other types of space that are necessary and currently available to implement the proposed program through Year 5.

UWF has sufficient classroom, teaching, research, office and other types of space to implement the M.S.D.S. degree program and to sustain it through Year 5.

The Departments of Mathematics and Statistics is housed in Building 4 on the UWF Pensacola campus. In addition to classrooms and laboratories, Building 4 contains faculty and administrative offices for the academic departments. The HMCSE has technology-enhanced classrooms available for general use in Building 4.

The Department of Mathematics and Statistics shares space with the Department of Computer Science to include two technology-enhanced classrooms and four laboratories. They are mainly used for:

- general computing research,
- artificial intelligence and projects,
- cybersecurity, and
- smart home research

D. Describe additional classroom, teaching laboratory, research laboratory, office, and other space needed to implement and/or maintain the proposed program through Year 5. Include any projected Instruction and Research (I&R) costs of additional space in Table 2 in Appendix A. Do not include costs for new construction because that information should be provided in response to X (E) below.

The M.S.D.S. degree program will not require any additional space to implement as the program utilizes existing faculty and classrooms through multiple departments. The majority of the program will be delivered via distance learning and new student growth is not anticipated to cause need for additional space. The Dean of the HMCSE does not anticipate the need for additional space through Year 5.

E. If a new capital expenditure for instructional or research space is required, indicate where this item appears on the university's fixed capital outlay priority list. Table 2 in Appendix A includes only Instruction and Research (I&R) costs. If non-I&R costs, such as indirect costs affecting libraries and student services, are expected to increase as a result of the program, describe and estimate those expenses in narrative form below. It is expected that high enrollment programs in particular would necessitate increased costs in non-I&R activities.

As is shown in Appendix A Table 2, no new capital expenditures for instructional or research space is required to implement this program, nor to sustain it through Year 5. As explained in Section X. A-B of this Request to Offer, the library services and resources currently available are adequate to support the M.S.D.S. degree program through Year 5.

F. Describe specialized equipment that is currently available to implement the proposed program through Year 5. Focus primarily on instructional and research requirements.

The M.S.D.S. degree program will be able to use the equipment that is currently available for the HMCSE departments that will be participating in the program. In Year 1, the program plans to purchase a new server estimated at \$10,000 with a predicted lifecycle usage of seven years (Appendix A Table 2 Col 1 Year 1 Expenses). No additional specialized equipment needs are anticipated through Year 5.

- G. Describe additional specialized equipment that will be needed to implement and/or sustain the proposed program through Year 5. Include projected costs of additional equipment in Table 2 in Appendix A.**

No additional specialized equipment is needed to implement or to sustain the M.S.D.S degree program through Year 5.

- H. Describe any additional special categories of resources needed to implement the program through Year 5 (access to proprietary research facilities, specialized services, extended travel, etc.). Include projected costs of special resources in Table 2 in Appendix A.**

No additional special categories of resources are needed to implement or to sustain the M.S.D.S degree program through Year 5.

- I. Describe fellowships, scholarships, and graduate assistantships to be allocated to the proposed program through Year 5. Include the projected costs in Table 2 in Appendix A.**

As shown in Appendix A Table 2 (Assistantships & Fellowships), the proposed program plans to offer up to five graduate assistantships at \$14,000 each in Year 1 at a cost of \$70,000. In Year 5, the M.S.D.S. degree program plans to award up to fifteen graduate assistantships at \$14,000 each for a total of \$210,000.

- J. Describe currently available sites for internship and practicum experiences, if appropriate to the program. Describe plans to seek additional sites in Years 1 through 5.**

The curriculum provides for applied research experiences in data sciences such as Knowledge Discovery and Data Mining, Machine Learning and Deep Learning, Spatial and Context-Aware Data Management, and Recommender Systems and Preference Analytics. UWF faculty will seek opportunities for students to interact with the local community on data science projects and have begun conversations with local businesses such as Navy Federal Credit Union (Appendix G).

APPENDICES

Appendix A

Table 1B Projected Headcount from Potential Sources

Table 2 Projected Costs and Funding Sources

Table 3 Anticipated Reallocation of E&G Funds

Table 4 Anticipated Faculty Participation

APPENDIX A
TABLE 1-B
PROJECTED HEADCOUNT FROM POTENTIAL SOURCES
(MS Data Science)

Source of Students (Non-duplicated headcount in any given year)*	Year 1		Year 2		Year 3		Year 4		Year 5	
	HC	FTE	HC	FTE	HC	FTE	HC	FTE	HC	FTE
Individuals drawn from agencies/industries in your service area (e.g., older returning students)	0	0	5	2.75	15	8.25	15	8.25	25	13.75
Students who transfer from other graduate programs within the university**	0	0	0	0	0	0	0	0	0	0
Individuals who have recently graduated from preceding degree programs at this university	5	2.75	10	5.5	15	8.25	25	13.75	30	16.5
Individuals who graduated from preceding degree programs at other Florida public universities	0	0	0	0	0	0	0	0	0	0
Individuals who graduated from preceding degree programs at non-public Florida institutions	0	0	0	0	0	0	0	0	0	0
Additional in-state residents***	5	2.75	10	5.5	20	11	20	11	20	11
Additional out-of-state residents***	10	5.5	20	11	30	16.5	30	16.5	35	19.25
Additional foreign residents***	5	2.75	10	5.5	10	5.5	10	5.5	15	8.25
Other (Explain)***	0	0	0	0	0	0	0	0	0	0
Totals	25	13.75	55	30.25	90	49.5	100	55	125	68.75

* List projected annual headcount of students enrolled in the degree program. List projected yearly cumulative ENROLLMENTS instead of admissions.

** If numbers appear in this category, they should go DOWN in later years.

*** Do not include individuals counted in any PRIOR category in a given COLUMN.

APPENDIX A

TABLE 2
PROJECTED COSTS AND FUNDING SOURCES

Instruction & Research Costs (non-cumulative)	Year 1								Year 5						
	Funding Source							Subtotal coulumns 1+...+7	Funding Source						Subtotal coulumns 9+...+ 14
	Reallocated Base* (E&G)	Enrollment Growth (E&G)	New Recurring (E&G)	New Non- Recurring (E&G)	Contracts & Grants (C&G)	Philanthropy Endowments	Enterprise Auxiliary Funds		Continuing Base** (E&G)	New Enrollment Growth (E&G)	Other*** (E&G)	Contracts & Grants (C&G)	Philanthropy Endowments	Enterprise Auxiliary Funds	
Columns	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Faculty Salaries and Benefits	150,071	0	0	0	0	0	0	\$150,071	182,412	0	0	0	0	0	\$182,412
A & P Salaries and Benefits	13,860	0	0	0	0	0	0	\$13,860	16,847	0	0	0	0	0	\$16,847
USPS Salaries and Benefits	0	0	0	0	0	0	0	\$0	0	0	0	0	0	0	\$0
Other Personal Services	0	0	0	0	0	0	0	\$0	0	0	0	0	0	0	\$0
Assistantships & Fellowships	70,000	0	0	0	0	0	0	\$70,000	210,000	0	0	0	0	0	\$210,000
Library	0	0	0	0	0	0	0	\$0	0	0	0	0	0	0	\$0
Expenses	15,000	0	0	0	0	0	0	\$15,000	5,000	0	0	0	0	0	\$5,000
Operating Capital Outlay	0	0	0	0	0	0	0	\$0	0	0	0	0	0	0	\$0
Special Categories	0	0	0	0	0	0	0	\$0	0	0	0	0	0	0	\$0
Total Costs	\$248,931	\$0	\$0	\$0	\$0	\$0	\$0	\$248,931	\$414,259	\$0	\$0	\$0	\$0	\$0	\$414,259

*Identify reallocation sources in Table 3.

**Includes recurring E&G funded costs ("reallocated base," "enrollment growth," and "new recurring") from Years 1-4 that continue into Year 5.

***Identify if non-recurring.

Faculty and Staff Summary

Total Positions	Year 1	Year 5
Faculty (person-years)	1.35	1.35
A & P (FTE)	0.33	0.33
USPS (FTE)	0	0

Calculated Cost per Student FTE

	Year 1	Year 5
Total E&G Funding	\$248,931	\$414,259
Annual Student FTE	13.75	68.75
E&G Cost per FTE	\$18,104	\$6,026

Table 2 Column Explanations

Reallocated Base* (E&G)	1	E&G funds that are already available in the university's budget and will be reallocated to support the new program. Please include these funds in the Table 3 – Anticipated reallocation of E&G funds and indicate their source.
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Enrollment Growth (E&G)	2	Additional E&G funds allocated from the tuition and fees trust fund contingent on enrollment increases.
New Recurring (E&G)	3	Recurring funds appropriated by the Legislature to support implementation of the program.
New Non-Recurring (E&G)	4	Non-recurring funds appropriated by the Legislature to support implementation of the program. Please provide an explanation of the source of these funds in the budget section (section III. A.) of the proposal. These funds can include initial investments, such as infrastructure.
Contracts & Grants (C&G)	5	Contracts and grants funding available for the program.
Philanthropy Endowments	6	Funds provided through the foundation or other Direct Support Organizations (DSO) to support of the program.
Enterprise Auxiliary Funds	7	Use this column for continuing education or market rate programs and provide a rationale in section III.B. in support of the selected tuition model.
Subtotal columns 1+...+7	8	Subtotal of values included in columns 1 through 7.
Continuing Base** (E&G)	9	Includes the sum of columns 1, 2, and 3 over time.
New Enrollment Growth (E&G)	10	See explanation provided for column 2.
Other*** (E&G)	11	These are specific funds provided by the Legislature to support implementation of the program.
Contracts & Grants (C&G)	12	See explanation provided for column 5.
Philanthropy Endowments	13	See explanation provided for column 6.
Enterprise Auxiliary Funds	14	Use this column for continuing education or market rate programs and provide a rationale in section III.B. in support of the selected tuition model.
Subtotal columns 9+...+ 14	15	Subtotal of values included in columns 9 through 14.

APPENDIX A

TABLE 3
ANTICIPATED REALLOCATION OF EDUCATION & GENERAL FUNDS*

Program and/or E&G account from which current funds will be reallocated during Year 1	Base before reallocation	Amount to be reallocated	Base after reallocation
Reallocated from the Hal Marcus College of Science and Engineering	248,931	248,931	\$0
	0	0	
	0	0	
	0	0	
	0	0	
	0	0	
Totals	\$248,931	\$248,931	\$0

* If not reallocating funds, please submit a zeroed Table 3

APPENDIX A

**TABLE 4
ANTICIPATED FACULTY PARTICIPATION**

Faculty Code	Faculty Name or "New Hire" Highest Degree Held Academic Discipline or Speciality	Rank	Contract Status	Initial Date for Participation in Program	Mos. Contract Year 1	FTE Year 1	% Effort for Prg. Year 1	PY Year 1	Mos. Contract Year 5	FTE Year 5	% Effort for Prg. Year 5	PY Year 5
A	Raid Amin, PhD Statistics	Professor	Tenured	Fall 2019	9	0.75	0.25	0.19	9	0.75	0.25	0.19
A	Subhash Bagui, PhD Statistics	Professor	Tenured	Fall 2019	9	0.75	0.25	0.19	9	0.75	0.25	0.19
A	Anthony Okafor, PhD Ind & Systems Engineering	Assistant Professor	Tenure Earning	Fall 2019	9	0.75	0.25	0.19	9	0.75	0.25	0.19
A	Samantha Seals, PhD Biostatistics	Assistant Professor	Tenure Earning	Fall 2019	9	0.75	0.25	0.19	9	0.75	0.25	0.19
A	Achraf Cohen, PhD Applied Mathematics	Assistant Professor	Tenure Earning	Fall 2019	9	0.75	0.25	0.19	9	0.75	0.25	0.19
A	Dallas Snider, PhD Integrated Computing	Associate Professor	Tenured	Fall 2019	9	0.75	0.25	0.19	9	0.75	0.25	0.19
A	Sikha Bagui, EdD C&I Software Engineering	Professor	Tenured	Fall 2019	9	0.75	0.13	0.09	9	0.75	0.13	0.09
A	Jia Liu, PhD Mathematics	Associate Professor	Tenured	Fall 2019	12	1.00	0.13	0.13	12	1.00	0.13	0.13
	Total Person-Years (PY)							1.35				1.35

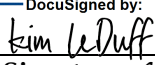
Faculty Code		Source of Funding	PY Workload by Budget Classification	
			Year 1	Year 5
A	Existing faculty on a regular line	Current Education & General Revenue	1.35	1.35
B	New faculty to be hired on a vacant line	Current Education & General Revenue	0.00	0.00
C	New faculty to be hired on a new line	New Education & General Revenue	0.00	0.00
D	Existing faculty hired on contracts/grants	Contracts/Grants	0.00	0.00
E	New faculty to be hired on contracts/grants	Contracts/Grants	0.00	0.00
Overall Totals for			Year 1 1.35	Year 5 1.35

Appendix B

Signatures

APPENDIX B

Please include the signature of the Equal Opportunity Officer and the Library Director.

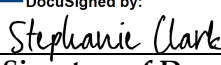
DocuSigned by:

Signature of Equal Opportunity Officer

02/20/2019

Date

Kim LeDuff

Name of Equal Opportunity Officer

DocuSigned by:

Signature of Dean of University Libraries

02/20/2019

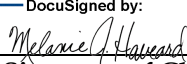
Date

Stephanie Clark

Name of Dean of University Libraries

This appendix was created to facilitate the collection of signatures in support of the proposal. Signatures in this section illustrate that the Equal Opportunity Officer has reviewed section II.E of the proposal and the Library Director has reviewed sections X.A and X.B.

UWF also requires that a Request to Offer a New Degree program is reviewed by the Chief Technology Officer.

DocuSigned by:

Signature of Chief Technology Officer

02/20/2019

Date

Melanie Haveard

Name of Chief Technology Officer

Appendix C

Academic Learning Plan and Student Learning Outcomes

ACADEMIC LEARNING PLAN

MASTER OF SCIENCE IN DATA SCIENCE

Mission Statement

The Department of Mathematics and Statistics strives to provide quality undergraduate and graduate education in Mathematics, Statistics, and Data Science and to contribute to the community, region, and profession through research and service. The goal of these programs is to prepare students for a successful professional career.

STUDENT LEARNING OUTCOMES

Graduates with a Master of Science in Data Science should be able to do the following:

CONTENT

Identify, formulate, and solve complex data problems by selecting and applying appropriate methods.

CRITICAL THINKING

Students understand the broad impact of data on society and can raise critical questions about data, its interpretation, and visualization, and the methods by which these are produced

COMMUNICATION

Students can formulate reasonable interpretations of data and share them effectively through visual and narrative means.

INTEGRITY/VALUES

Recognize ethical and professional responsibilities in data science situations and make informed judgments, which must consider the impact of the solutions in global, economic, environmental, and societal contexts.

PROJECT MANAGEMENT

Students can choose and employ appropriate tools for data collection, storage, manipulation, analysis, visualization, dissemination, and preservation, as relevant to goals, tasks, and users.

ASSESSMENT OF STUDENT LEARNING OUTCOMES

Program SLOs will be assessed using selected student work in the core course of Statistical Modeling (STA5176), Big Data Analytics (CAP 5XX1-1) and Machine Learning (MAP 6001). Within these courses, exam questions and projects are used to assess program level outcomes.

JOB PROSPECTS

With a Master of Data Science degree, you can pursue jobs in variety of fields that involve working with data. Some of the opportunities a Master of Data Science degree holder will find include:

- Statistician who works for national governments, local authorities, consulting and reporting companies, market research companies, and research institutes.
- Business intelligence reporting professional, who works for tech companies, financial companies, consulting and reporting companies.
- Data Analyst who works for telecommunications companies, finance companies, manufacturing companies, construction and utility companies and other large companies.
- Data Mining or Big Data Engineer who works for tech companies, entertainment companies, retail and trade companies.

Find out more about Data Science:

<https://uwf.edu/hmcse/departments/mathematics-and-statistics/>

Appendix D

Curriculum Vitarum

Curriculum Vitae

Raid W. Amin

Work Address:

11000 University Pkwy,
Department of Mathematics & Statistics,
The University of West Florida
Pensacola, FL 32514
(850) 474-3014

ramin@uwf.edu

<http://uwf.edu/cse/departments/mathematics-and-statistics/our-faculty/faculty-profiles/dr-raid-amin.html>

RESEARCH AND GENERAL INTERESTS

Statistical Education, Statistical Quality Control, Regression Analysis, Experimental Design, Spatial Epidemiology, Disease Surveillance, Biostatistics, Human-Shark Interaction, Environmental Surveillance, Statistical Consulting.

EDUCATION

Ph.D. Statistics, Department of Statistics, Virginia Polytechnic Institute and State University, Blacksburg, Virginia. July 1987.

M.S. Statistics, Department of Statistics, Virginia Polytechnic Institute and State University, Blacksburg, Virginia. March 1983.

B.S. Statistics, Department of Statistics, Baghdad University, Iraq. June 1979.

PROFESSIONAL EMPLOYMENT

Professor. University of West Florida. Faculty member, Department of Mathematics and Statistics (August 1995-present).

Associate Professor. University of West Florida. Faculty member, Department of Mathematics and Statistics (August 1991-July 1995).

Assistant Professor. University of West Florida. Faculty member, Department of Mathematics and Statistics (August 1987-July 1991).

COURSES TAUGHT AT UWF

STA 5206 : Analysis of Variance

STA 6507 : Nonparametric Statistics

STA 6666 : Statistical Quality Control I

STA 6667 : Statistical Quality Control II

STA 5166 : Special Topics in Statistics

STA 6247(now STA6707): Multivariate Methods

STA 5207 : Regression Analysis
 STA6235: Modeling in Regression
 STA 6990 : Topics in Regression
 STA 6256 : Design of Experiments
 STA 5136 : Applied Statistics for the MBA
 STA 2023 : Elements of Statistics
 STA 3162C: Applied Statistics (with SAS Lab)
 STA 3134 : Quantitative Methods for Business
 STA 1013 : Seeing Through Statistics
 STA 4173: Biostatistics
 STA5176: Statistical Modeling
 STA 4990/STA4664: Introduction to Quality Control
 MAP 6990 Topics in Mathematics and Statistics: Cluster Analysis with SaTScan
 PHC 5050 Biostatistics for Public Health [fully online]
 STA 6912 Statistics Research 1
 STA 6913 Statistics Research 2

SUPERVISION OF MASTER'S THESES IN STATISTICS:

1. Robert Baxley, Jr. : A Simulation Study of Statistical Control Algorithms for Drifting Processes. Defended in February 1990.
2. Alice Searcy : A Nonparametric Exponentially Weighted Moving Average Process Control Procedure based on Ranks. Defended in March 1990. (published).
3. Richard Miller : A Robustness Study of Shewhart $\bar{X}$ -Charts with Variable Sampling Intervals. (published).
4. Oskar Widmaier : A Sign Control Chart with Variable Sampling Intervals and Curtailement. (August 1994). (published)
5. Werner Besenfelder : Some Nonparametric Control Charts for Process Variability. (August 1995).
6. Ping Fang : A Robustness Study of CUSUM Charts for the Range. (July 1995).
7. Andreas Goelz : Shewhart and CUSUM Sign Charts for Variability. (August 1997).
8. Gabriele Sattler : Curtailed Sampling Plans Applied to Some Nonparametric Control Charts. (August 1997).
9. Stefan Boehm : Estimation and Monitoring of Capability Indices through the EWMA. (July 1998)
10. Christian Kopf : The Effect of Autocorrelation on Capability Indices. (July 1998).
11. Matthias Wilde : A New Two-Sided CUSUM Chart for Variability (July 1999). (published)
12. Claudia Muench : The Effect of Gamma-distributed Data on Process Capability Indices . (July 1999).
13. Michaela Glasbrenner : The MaxMin EWMA Control Chart with Variable Sampling Intervals. (July 1999)

14. Joern Philipp : Multivariate Control Charts and Variability. (August 2001).
15. Guenter Ebhard : Some Properties of Multivariate Control Charts. (August 2001).
16. Oliver Bengel: Multivariate Control Charts for Location and Variability. (August 2004) (published)
17. Markus Schierle: A Comparison of Multivariate Control Charts for Autocorrelation. (July 2005)
18. Fabian Niebling: Modified Control Charts for Multivariate Autocorrelated Data. (July 2005)
19. Daniel Staedel: Statistical Analysis of Cancer Rates in Florida (August 2007)
20. Alexander Bohnert: Statistical Clustering of Pediatric Cancer Rates in Florida (July 2009) (published)

Supervision of Applied Spatial Research Projects (STA6913)

1. A Spatial Study of Upward Mobility in the USA (John McAllister- 2017/2018)
 2. Spatial Patterns of some Cancer Types and Associated Risk Factors in the USA
 3. Clusters of Cancers and Association with Arsenic in Well Water in the USA
 4. Clusters of Cardiovascular Disease and Cancers and associated Life Expectancy
 5. A Spatial Study of Mortality and Incidence of Kidney Cancer in the USA. (Jonathan Guy).
 6. A Study of County Demographic Profiles in the 2016 Presidential Elections with a Focus on Opioids Mortality (Jonathan Lee).
 7. Proximity to Nuclear Power Plants and Associated Cancer Risk (Austin Manuel).
 8. Clusters of Breast Cancer in the USA: Incidence and Mortality (Bridget Fritsch).
 9. A Spatial Study of all Bridges in the USA and Associated Maintenance Needs (Talia Barraco- 2017/2018).
-
10. Proximity to Nuclear Power Plants in the USA and Associated Breast Cancer Risk.(Steven Kern-2016/2017)
 11. Clusters of the Top 5 Female Cancer Types in the USA and Air Pollution. (Olga Akkan-2016/2017)
 12. Clusters of the Top 5 Male Cancer Types in the USA and Air Pollution. (Christian Jarquin-2016/2017)
 13. Lung Cancer and Bronchus Clusters and Association with Air Pollution. (Charnelle Brown- 2016/2017)
 14. Mercury and Lead Pollution and Breast Cancer. (Joseph Wojciechowski-2016/2017)
 15. Population Profiles for the 2016 Presidential Elections in the USA. Shawn Harrell-2016/2017)
 16. Crimes Arrests in the USA and Associations with Air Pollution.(Mehul Patel-2016/2017)
 17. Clusters of Cervical Cancer Incidences in the USA and Air Pollution. (Huberman Dorcent-2016/2017)
-
18. Pediatric Cancer Clusters in Florida (Sam Russel-2015/2016)

19. Geographic Clusters of Violent Crimes in the USA (Hongbo Yang-2015/2016)
 20. Clusters of Divorce Rates in the USA (Nicole Conway-2015/2016)
 21. Clusters of Breast Cancer in the USA (Anne Starling-2015/2016)
 22. Clusters of Diabetes in the USA (Grace Simones-2015/2016)
 23. Clusters of DUI Rates in the USA (Shannon MacDougall-2015/2016)
 24. Geographic Clusters of Murder in the USA (Amber Jones-2015/2016)
 25. Clusters of Teenage Births in the USA (Jennifer Hans-2015/2016) **(published)**
 26. Clusters of Physical Inactivity Rates in the USA (Vitaliy Goncharenko-2015/2016)
 27. Clusters of Primary Physicians in the USA (Russel Frith-2015/2016)
 28. Clusters of Alzheimer's Disease in the USA (Eric Yacko-2015/2016)
-

29. Trend and Cluster Analysis on Large EPA Data Sets (Toni Charlot-2014/2015)
30. Cancer Associations with Nitrate and Nitrite concentrations across the nation (Tina Churchill-2014/2015)
31. Motorcycle Accident Fatalities (Ramsey Dial-2014/2015)
32. The Relationship between Employment and Retail Sales (Cheryl Little-2014/2015)
33. Health Care Rate and Air Pollution (Ralph Myers-2014/2015)
34. Cluster Analysis of Heart Disease Deaths in the USA (Cynthia Newton-2014/2015)
35. Time Series Forecasting of Crime Rates in the USA (Kristina Platt-2014/2015)
36. Murder Arrests and Reported Cluster Analysis (Sean Young-2014/2015)
37. A Study of Superfund Sites in the Forty-eight Contiguous States of the United States of America. (Arlene Nelson (Barbas)- 2014-2015) **(published)**

CONSULTING

Department of Mathematics and Statistics, University of West Florida. Consult with faculty and students on any statistical analyses. (August 1987-present).

Sacred Heart Hospital (Florida State Residency Program). I am responsible for supporting all resident physicians in their residency projects (UWF-SHHS contract, 2010-present).

West Florida Hospital (Pharmacy Residence Program). I am responsible for supporting all resident pharmacists in their residency projects (UWF-WFH contract, 2014-present).

Faculty Development:

Member of the 2005-2006 UWF LEAD group for leadership training.
LEAD Fellow in the College of Business, 2006-2007.

Community Service:

Member, Pensacola North Rotary Club.

PUBLICATIONS

Google Scholar Citation Index:

<https://scholar.google.com/citations?user=QZnHYuoAAAAJ&hl=en&oi=ao>

Citation indices	All	Since 2013
Citations	1806	667
<u>h-index</u>	17	13
i10-index	23	17

A. Publications in Peer Reviewed Journals

1. Reynolds, M. R., Jr., **Amin, R. W.**, Arnold, J. C., and Nachlas, J. A. “ $\bar{X}$ -charts with Variable Sampling Intervals." *Technometrics*, 30 (1988), 181192.
2. Reynolds, M. R., Jr., **Amin, R. W.**, and Arnold, J. C. “CUSUM Charts with Variable Sampling Intervals." Featured article in *Technometrics*, 32 (1990), 371396.
3. Ncube, M. M., and **Amin, R. W.** “Two-parameter Cu-Score Quality Control Procedures". *Communications in Statistics: Theory and Methods*, 19 (1990), 21912205.
4. **Amin, R. W.** and Letsinger, W. C., Jr. “Improved Switching Rules for Control Procedures Using Variable Sampling Intervals". *Communications in Statistics: Computation and Simulation*, 20 (1991), 205-230.
5. **Amin, R. W.**, and Ncube, M. M.. “Variable Sampling Interval Combined Shewhart-Cumulative Score Control Procedure." *Applied Statistics*, 40 (1991), 1-12.
6. **Amin, R. W.** and Searcy, A. “A Nonparametric Exponentially Weighted Moving Average Control Procedure". *Communications in Statistics: Computation and Simulation*, B20, No. 4, (1991), 1049-1072.
7. Shamma, S. E., **Amin, R. W.**, and Shamma A. K. “A Double Exponentially Weighted Moving Average Control Chart with Variable Sampling Intervals". *Communications in Statistics:Computation and Simulation*, B20, No. 2&3, (1991), 511-528.
8. Wheatley, W. J., **Amin, R. W.**, and Maddox, E. N. . “The Effects of Gender and Leadership Styles in Problem-Solving for Management Training and Development", *Organization Development Journal*, Vol. 9, 3, (1991), 5160.
9. Saccucci, M. S., **Amin, R. W.**, and Lucas, J. M. . “Exponentially Weighted Moving Average Control Schemes with Variable Sampling Intervals". *Communications in Statistics : Computation and Simulation*, No. 3, (1992), 627-657.
10. **Amin, R. W.** and Miller, R. “A Robustness Study of the X-chart with Variable Sampling Intervals". *Journal of Quality Technology*, Vol. 25, No. 1,(1993), 3644.
11. Shamma, S. E. and **Amin, R. W.** “An EWMA Quality Control Procedure for Jointly

Monitoring the Mean and Variance". *International Journal of Quality & Reliability Management*, Vol. 10, No. 7, (1993), 58-67.

12. **Amin, R. W.** and Hemasinha, R. "The Switching Behavior of X Charts with Variable Sampling Intervals." *Communications in Statistics: Theory and Methods*, Vol. 22, Issue 7, (1993), 2081-2102.

13. **Amin, R. W.** and Wolff, H. "The Behavior of X-, R-, and Extreme-Value Control Charts in the Presence of Mixtures". *Sequential Analysis*, Vol. 13, No. 1, (1994), 35-52.

14. **Amin, R. W.** and Wolff, H. "The Behavior of EWMA-Type Control Charts in the Presence of Mixture Alternatives". *Sequential Analysis*, Vol. 14, No. 1, (1995), 157-177.

15. **Amin, R. W.**, Reynolds Jr., M.R., and Bakir, S. "Nonparametric Control Charts Based on the Sign Statistic". *Communications in Statistics: Theory and Methods*, 24, No. 6, (1995), 1597-1624.

16. **Amin, R. W.**, Schmid, W, and Frank, O. "The Effect of Autocorrelation on the R-Chart and the S-Chart." *Sankhya, Series B*, Vol. 59, Part 2, (1997) 229-255.

17. **Amin, R. W.** and Ethridge, R. "A Note on Individual and Moving Range Control Chart", *Journal of Quality Technology*, Vol. 30, No. 1, (1998), 70-74.

18. **Amin, R. W.** and Lee, S. J. "The Effect of Autocorrelation and Outliers on Two-Sided Tolerance Limits." *Journal of Quality Technology*, Vol. 31, No. 3, (1999), 286-300.

19. **Amin, R. W.**, Wolff, H., Besenfelder, W. and Baxley, Jr., R. "An EWMA for the Smallest and Largest Observations." *Journal of Quality Technology*, Vol. 31, No. 2, (1999), 189-207.

20. **Amin, R. W.** and Widmaier, O. "Sign Charts with Variable Sampling Intervals". *Communications in Statistics: Theory and Methods*, Vol. 28, Issue 8, (1999), 1961-1986.

21. **Amin, R. W.** and Li. K. "The MaxMin EWMA Tolerance Limits." *International Journal of Quality and Reliability Management*, Vol. 17, Issue 1, (2000).

22. Lee, S. J. and **Amin, R. W.** "Process Tolerance Limits." *Total Quality Management*, Vol. 11, No. 3, 267-280 (2000).

23. **Amin, R. W.** and Wilde, M. "Two-sided CUSUM Control Charts for Variability." *Allgemeines Statistisches Archiv (Journal of the German Statistical Society)*, No. 84, pp. 295-313, (2000).

24. **Amin, R. W.** and Li, K. "The Effect of Autocorrelation on the EWMA Maximum Tolerance Limits". *Journal of Statistical Computation and Simulation*, Vol. 72, Number 9, pp. 719-735, (2002).

25. Knoth, S. and **Amin, R. W.** “Tolerance Limits and Autocorrelation”. Journal of Statistical Computation and Simulation. Vol. 73, No. 7, pp. 467-489, (2003).
26. Behan, K. and **Amin, R.** “Normoglycemia encompasses two subpopulations with respect to vascular risk in non-obese Caucasian women”, Lab Medicine, Vol. 563, Nr. 1, (2005).
27. Pakulski D., Baldwin A., Dean, A., Durkin, S., Karentz D., Kelley K., Spero H., Wilhelm S., **Amin, R.**, and Jeffery W. “Responses to heterotrophic bacteria to solar irradiance in the eastern Pacific Ocean”, Aquatic Microbial Ecology, Vol. 47, pp. 153-162, (2007)
28. **Raid Amin**, Kuiyuan Li, and Oliver Bengel (2008). “Tolerance Limits Based on the Multivariate MaxMin Chart.” Communications in Statistics: Simulation and Computation. Volume 37, Issue 5, pp 1020 – 1037.
29. Kuiyuan Li and **Raid Amin** (2008). “A Method for a Special Singular Eigenvalue Problem”. Advances in Mathematical Sciences Journal (AMSJ). Vol. 5, No.2, 1-11, 2008.
30. Kuiyuan Li, Jossy Uvah, **Raid Amin**, and Rohan Hemasinha (2009). “A Study of Non-traditional Instruction on Qualitative Reasoning and Problem Solving in General Studies Mathematics Courses.” Journal of Mathematical Sciences & Mathematics Education, Vol. 4 No. 1, 37
31. Robert R. Hoffman, Morris Marx, **Raid Amin**, and Patricia L. McDermott. (2010) “Measurement for Evaluating the Learnability and Resilience of Methods of Cognitive Work.” Theoretical Issues in Ergonomic Science.
32. **Raid Amin**, Alexander Bohnert, Laurens Holmes, Ayyappan Rajasekaran, and Chatchawin Assanasen (2010). *Cover Page and Research Article* in Pediatric Blood and Cancer. 2010 April;54(4): 511-8. *Highlighted* in “Childhood cancer clustering in Florida: weighing the evidence,” Johnson KJ, Puumala SE. Pediatric Blood and Cancer. 2010 April; 54(4): 493-4. “Epidemiologic Mapping of Florida Childhood Cancer Clusters”. Pediatric Blood and Cancer, Vol. 54, Issue 4, pp.511-518.
33. **Raid Amin** and Kuiyuan Li (2010). “Should Graduate Mathematics Courses be taught fully online?” Electronic Journal of Mathematics and Technology, Volume 4, Number 1, pp. 47-56.
34. Kuiyuan Li, Jossy Uvah, **Raid Amin**, and Anthony Okafor (2010). “A Study of College Readiness for College Algebra.” Journal of Mathematical Sciences & Mathematics Education, **vol. 5, #1, pp. 52-66.**
35. **Raid Amin**, Alexander Bohnert, Laurens Holmes, Ayyappan Rajasekaran, and Chatchawin Assanasen (2010). Response to “Childhood Clustering in Florida: Weighing the Evidence”. Pediatric Blood and Cancer, Vol. 54, Issue 7, pp. 1053.

36. Pamela P. Vaughan, Paul Novotny, Nicole Haubrich, Luther McDonald, Michael Cochran, Julia Serdula, **Raid W. Amin**, Wade H. Jeffrey (2010). "Bacterial Growth Response to Photoactive Quinones". *Photochemistry and Photobiology*. Vol. 86: pp.1327–1333.
37. Kuiyuan Li, **Raid Amin**, Jossy Uvah (2011). "On Synchronous Distance Teaching in a Mathematics MS Program." *US-China Education Review*.
38. Baugh F, Archer S, Mitchell R, Rosenfeld R, **Amin R**, Burns J, Darrow D, Giordano T, Litman R, Li K, Mannix M, Schwartz R, Setzen G, Wald E, Wall E, Sandberg G, Patel M. *Clinical Practice Guidelines: Tonsillectomy in Children. Otolaryngology—Head and Neck Surgery* (2011) 144: S1.
39. Erich Ritter and **Raid Amin** (2012). "Effect of human body position on the swimming behavior of bull sharks, *Carcharhinus leucas*." *Society & Animals*.
40. **Raid Amin**, Erich Ritter, and Peter Kennedy (2012). "A geospatial analysis of shark attack rates for the east coast of Florida: 1994–2009", *Marine and Freshwater Behaviour and Physiology*.
41. Kuiyuan Li, Jossy Uvah, **Raid Amin** (2012). "Predicting Students' Performance in Elements of Statistics" *US-China Education Review*.
42. Raid Amin, Erich, Ritter, and Laura Cossette (2012). A Geospatial Analysis of Shark Attack Rates for the Coast of California: 1994–2010, *Journal of Environment and Ecology*, Macrothink Institute. Vol. 3, No. 1.
43. Erich Ritter and **Raid Amin**, (2013), "Are Caribbean reef sharks, *Carcharhinus perezi*, able to perceive human body orientation?" *Animal Cognition*. Volume 17, Number 3, pp 745-753. (Springer Verlag issued a press release for this article on December 4, 2013. Springer Select – ground-breaking research) <http://www.springer.com/about+springer/media/springer+select?SGWID=0-11001-6-1447944-0> The Economist has an article about it in its 12.14.2103 issue. <http://www.economist.com/news/science-and-technology/21591551-some-sharks-know-how-stay-out-sight-nearby-people-hes-behind-you>
44. Erich Ritter, **Raid Amin**, Aletheia Zambesi (2013). "Do Lunar Cycles Influence Shark Attacks"? *Open Fish Science Journal*, 6, 71-74.
45. JJ Burns, T Broge, G River-Diaz, S Taylor, S Hommeida, P Onuegbu, **R Amin** (2013). "Geographic Cluster of Kawasaki Disease vs. a Control Population for Florida Panhandle Regional Children's Hospital." *Journal Of Investigative Medicine*, 61 (2), 384-384.
46. Poe AM, **Amin RW**, Minhas BS, Rippa BA (2013). Advancing endometriosis stage is associated with a decline in anti-mullerian hormone independent of age and tobacco. *Fertility and Sterility*.
47. **Raid Amin** and James Burns (2014). "Clusters of adolescent and young adult thyroid cancer in Florida counties." *BioMed Research International*. [open access online journal]

48. **Raid W. Amin**, Michael Hendryx PhD, Matthew Shull & Alexander Bohnert (2014). "A cluster analysis of pediatric cancer incidence rates in Florida: 2000-2010." Special Issue of Statistics and Public Policy. The American Statistical Association. Volume 1, Issue 1, pp. 69-77.
49. **Raid W. Amin** (2014). "Background on Florida Pediatric Cancer Cluster Studies." Special Issue of Statistics and Public Policy. The American Statistical Association.
50. **Raid Amin**, Erich Ritter, and Ashleigh Wetzel (2014). "An Estimation of Shark Attack Risk for the North and South Carolina Coast Lines." Journal of Coastal Research.
51. Julie Decesare, **Raid Amin**, and Donna Maxwell (2015). "Postpartum Contraception Rates in Centering Pregnancy Versus Traditional Obstetrical Care." The Journal of Reproductive Medicine.
52. N Salz, A Lopez, **R Amin**, JJ Burns (2014). Perceived Pain with HPV Vaccine compared to other recommended Vaccines for Adolescents: what causes the biggest "Ouch"? Journal of Investigative Medicine.
53. T Pinto, **R Amin**, J Burns, M Kummer (2015). "Impact of implementation of a multidisciplinary diabetes program on reducing poorly controlled diabetes." Journal of Investigative Medicine 63 (2), 462-462
54. Erich Ritter and **Raid Amin** (2015). "A Study of Shark Stealth Behavior in the Proximity of Divers." Open Journal of Animal Sciences, 2015, 5.
55. Brittney Williams, Sharon Seidel, **Raid Amin**, Blakele Bakker, Julie DCesare (2015). "Quantified Blood Loss: An Alternative Method in Correlating Change in Predelivery and Postdelivery Hematocrit." Obstetrics and Gynecology, vol. 125. (The Green Journal, **Impact Factor: 5.656**
56. **Raid Amin**, Nicole S. Nabors, Arlene M. Nelson, Murshid Saqlain, and Martin Kulldorff (2015). "Geographical Clusters of Rape in the United States: 2000-2012." Journal of Statistics and Public Policy.
57. James Burns, Naomi Flock, Mary Lopez, Lela Hobby, Amanda Lopez-Beyer, **Raid Amin** (2015). "A Blinded Comparison of Injection Pain with Quadrivalent HPV Vaccine." Journal of the Pediatric Infectious Diseases Society.
58. Smith L, Mosley J, Lott S, Cyr E Jr, **Amin R**, Everton E, Islami A, Phan L, Komolafe O. Impact of pharmacy-led medication reconciliation on medication errors during transition in the hospital setting. Pharmacy Practice 2015 OctDec; 13(4):634. doi: 10.18549/PharmPract. 2015.04.634
59. Erich Ritter and **Raid Amin**. Mouth Cleaning of Lemon Sharks, *Negaprion brevirostris*, by Sharksuckers, *Echeneis naucrates*. Copeia (2016).
60. **Raid Amin**, Erich Ritter, Martin Kulldorf, Arlene Barbas, Mischa Schwarzmeier "Sharksuckers, *Echeneis naucrates*, are non-randomly attached to the bodies of lemon sharks, *Negaprion brevirostris*: A spatial study". Environmental Sciences. 2016.

61. Achraf Cohen and **Raid Amin**. “The Effects of Normal Mixtures and Autocorrelation on the Fraction Non-Conforming”. Communications in Statistics - Simulation and Computation (2016).
62. Bouso J, Burns J, **Amin R**, Livingston F, Eldemir O. “Household proximity to water and nontuberculous mycobacteria in children with cystic fibrosis .” Pediatric Pulmonology. (2016).
63. **Amin R.**, DeCesare J., Hans J., Roussous-Ross K., Epidemiological Surveillance of Teenage Birth Rates in the United States, 2006-2012, Obstetrics and Gynecology (The Green Journal, **Impact Factor: 5.656**) (2017). This article was reviewed in FORBES.com on May 9, 2017 in an article by Rita Rubin. <http://www.forbes.com/sites/ritarubin/2017/05/10/teen-birth-rate-has-fallen-but-in-some-parts-of-u-s-its-still-nearly-twice-the-national-average/#195879997f84>. Its Altmetric score is 622 on June 27, 2017.
64. Decesare J., Hannah D., **Amin R.**, Postpartum Contraception Use Rates of Patients Participating in the Centering Pregnancy Model of Care Versus Traditional Obstetrical Care, The Journal of Reproductive Medicine (2017).
65. Gorman S, Lee A, **Amin R**, and Burns J. "Potential adverse consequences of early discharge for newborns who meet American Academy of Pediatrics criteria", Clinical Pediatrics. (2017). [Impact Factor : 0.89]
66. **Amin, R. W.**, Guttmann, R. P., Harris, Q. R. and Thomas, J. W. (2018), “Prediction of Vancomycin Dose for Recommended Trough Concentrations in Pediatric Patients With Cystic Fibrosis” The Journal of Clinical Pharmacology. doi:10.1002/jcph. [Impact factor for 2014: 2.475]

67. **Raid Amin**, Arlene Nelson, Shannon McDougall. “A Spatial Study of the Location of Superfund Sites and Associated Cancer Risk”. Journal of Statistics and Public Policy (2018). doi: 10.1080/2330443X.2017.1408439.
68. DeCesare J, Roussous Ross D, Vidrine S, Ashby M, Peterson H . **Amin R**. Barriers to Tdap Vaccination in Pregnancy: Perspectives from Obstetricians and Patient Infections Disease in Obstetrics and Gynecology. International Journal of Obstetrics and Gynecology, (2018). [Impact Factor: 2.17]
69. **Raid W. Amin**, Erich Ritter, Bethany A Bonell. “Shark bite rates along the US Gulf coast: a first investigation.” Environmental Sciences. (2018) [Impact Factor: 3.243]
70. DeCesare JZ, Ross KR, Vidrine S, Peterson H, Ashby M, Floyd E. and **Amin R**. (2018) Barriers to Tdap Vaccination in Pregnancy: Perspectives from Obstetricians and Patients. International Journal of Pregnancy & Child Birth 4(1): 00077. DOI: 10.15406/ipcb.2018.04.00077.
71. Raid Amin, Eric Yacko, and Rodney Guttmann. Geographic Clusters of Alzheimer’s Disease Mortality Rates in the USA: 2008-2012. Journal of Prevention of Alzheimer’s Disease. (2018)

B. Publications in Peer Reviewed Proceedings

1. Wheatley, W. J., Amin, R. W., and Maddox, E. N. (1989). "The Effects of Gender and Leadership Styles in Problem-Solving for Management Training and Development", Proceedings of the 27th Annual Southern Management Association Meetings, New Orleans, November 1989.
2. Wheatley, W. J., Amin, R. W., Armstrong, T. R., and VanderLinde, C. T. "The Effect of Leadership and Cognitive Processing Styles upon Peer Performance Evaluation : Implication for the Utilization of Simulations in Business Pedagogy." Proceedings of the Association for Business Simulation and Experiential Learning (ABSEL), Nashville, April 1991.
3. Wheatley, W. J., Amin, R. W., Maddox, E. N. , and VanderLinde, C. T. "Ascertaining Performance Variables for Use in Determining Students' Grades in Courses Employing a Business Simulation." Proceedings of the Association for Business Simulation and Experiential Learning (ABSEL), Nashville, April 1991.
4. Bobbie, P.O., Amin, R. W., Hemasinha, R. and Huitt, S. "Statistical Prediction of Page Fault and Frame Allocation for Computer Programs", Conference on the Interface Between Statistics and Computer Science, Orlando, 1989.
5. Amin, R.W., Wolff, H., and Besenfelder, W. "An EWMA Control Chart for the Extremes", Wuerzburg-Umea Conference in Statistics, University of Wuerzburg, Germany, May 1996.
6. Hoffman, R. R., Marx, M., McDermott, P, and Amin, R. (2009, October). "The metrics problem in the study of cognitive work and a proposal for a family of solutions." In Proceedings of the Annual Meeting of the Human Factors and Ergonomics Society. Santa Monica, CA: Human Factors and Ergonomics Society.
7. Hitt, N., Hendryx, M., Amin, R., & Schull, M. (2012, September). Ecological Indicators of Human Cancer Mortality Rates: New Tools for Exposure and Risk Modeling. In *ENVIRONMENTAL AND MOLECULAR MUTAGENESIS* (Vol. 53, pp. S23-S23). 111 RIVER ST, HOBOKEN 07030-5774, NJ USA: WILEY-BLACKWELL.
8. Raid Amin, Arlene Nelson, Shannon McDougall (2017). *A cluster analysis of USA Superfund Sites and Associated Cancer Risk.*" (Rome, Italy). 7th International Conference on Environmental Pollution and Remediation (ICEPR'17).

C. Book Chapters

Burgoyne CF, HW Thompson, DE Mercante, and **RW Amin**, Basic issues in the sensitive and specific detection in optic nerve head surface change within longitudinal LDT TopSS image: Introduction to the LSU experimental glaucoma (LEG) study, *Lead book chapter in: The Shape of Glaucoma, Quantitative Neural Imaging Techniques*. Lemij HG, Schuman JS (eds). Kugler Publications, The Hague, The Netherlands, 2000 pp. 1-37, 1999.

Ritter, E. & **R. Amin** (2017). The importance of academic research in the field of shark-human interactions: A three-pronged approach to a better understanding of shark encounters. In: Chondrichthyes. L. F. da Silva Rodrigues Filho and J. B. de Luna Sales (eds). InTech, Rijeka, Croatia, 63-80.

D. Peer Reviewed Clinical Research Abstracts

Salz N., Lopez-Beyer A., Amin R., Burns J. Perceived Pain With HPV Vaccine Compared To Other Recommended Vaccine For Adolescents: What Causes The Biggest "Ouch"? Presented at platform presentation Southern Society for Pediatric Research (SSPR) 2014 Annual Meeting, New Orleans and poster presentation for National Pediatric Academic Society Meeting, Vancouver 2014.

Naomi Salz Fsui; Amanda Lopez-Beyer; Amin, R., James J. Burns MD MPH. *Perceived Pain With HPV Vaccine Compared To Other Recommended Vaccine For Adolescents: What Causes The Biggest "Ouch"* Accepted for platform presentation at the Southern Regional Meeting 2014, New Orleans.

Burns J., Hommeida S., Broge T., Onuegbu P., Taylor S., Rivera G., Wilkinson D., Griffin D., Hobby L., Amin R. Risk Factors Associated with Kawasaki Disease: A Case-Control Study. Presented as platform presentation Southern Society for Pediatric Research (SSPR) 2014 Annual Meeting, New Orleans and poster for National Pediatric Academic Society Meeting, Vancouver 2014.

James Joseph Burns, Raid Amin, Tangra Broge, Salim Hommeida, Patricia Onuegbu, Sneha Taylor. *Relationship Between Wind Direction And A Temporal Kawasaki Disease (KD) Cluster*. Accepted for platform presentation at the Southern Regional Meeting 2014, New Orleans.

Burns J., Hills L., Amin R. *Parents perceived vs. actual immunization up to date (UTD) status for their adolescent*. Presented at the 2013 national Society for Adolescent Health and Medicine meeting.

Burns J., Broge T., Hommeida S., Onuegbu P., Taylor S., Griffin D., Amin R. *Geographic Cluster of Kawasaki Disease vs. a Control Population for Florida Panhandle Regional Children's Hospital*. Presented at the Southern Research Meeting 2013 and National Pediatric Academic Society Meeting 2013.

Burns J., Broge T., Hommeida S., Onuegbu P., Taylor S., Griffin D., Amin R. *Proximity to major bodies of water and Kawasaki Disease*. Presented at the Southern Research Meeting 2013

and National Pediatric Academic Society Meeting 2013.

Nguyen N., Panganiban J., Amin R., Burns J. *Relationship Between HEADSS Assessment and Abnormal Pediatric Symptoms Checklist (Y-PSC) Scores in Screening Adolescents for Mental Health Problems*. Presented as platform presentation at the Eastern Society for Pediatric Research meeting in Philadelphia, Pa. March 2012 and poster presentation at the National Pediatric Academic Society Meeting, Boston Ma. May 2012.

Panganiban J., Nguyen N., Amin R., Burns J. *High Internalizing Scores on the Pediatric Symptom Checklist Associated with Obesity and Higher Blood Pressure*. Presented as poster presentation at the National Pediatric Academic Society Meeting, Boston Ma. May 2012.

Burns J., Rivera-Diaz G., Broge T., Hommeida S., Oneugbu P., Hobby L., Amin R. *Spatial and Temporal Clustering of Kawasaki Disease in Florida Panhandle*. Presented as poster presentation at both the Eastern Society for Pediatric Research meeting in Philadelphia, Pa. March 2012 and the National Pediatric Academic Society Meeting, Boston Ma. May 2012.

Hannah, D.; Amin, R.; Maxwell, D.; DeCesare, J.: *Postpartum Contraception Rates in Centering Pregnancy versus Traditional Obstetrical Care*, accepted for presentation ACOG Poster Meeting, New Orleans, LA, May 2013.

PRESENTATIONS (outside UWF)

"Variable Time Delay Process Control." Presented at the Virginia Academy of Science (ASA Chapter) Meetings (with M. R. Reynolds and J. C. Arnold), Harrisonburg, Virginia, May 1986.

"Variable Sampling Interval Process Control." Presented at the American Statistical Association (ASA) Winter Meetings (with Marion R. Reynolds, Jr. and Jesse C. Arnold), Orlando, Florida, January 1987.

"CUSUM Charts with Variable Sampling Intervals". Presented at the American Statistical Association (ASA) Winter Meetings (with Marion R. Reynolds, Jr. and Jesse C. Arnold), San Antonio, Texas, January 1988.

"Two Parameter Cu-Score Quality Control Procedures". Presented at the American Statistical Association (ASA) National Meetings (with Matoteng M. Ncube), New Orleans, Louisiana, August 1988.

"Variable Sampling Interval Combined Shewhart-Cumulative Score Quality Control Procedures". Presented at the American Statistical Association (ASA) National Meetings (with Matoteng M. Ncube), New Orleans, Louisiana, August 1988.

"Exponentially Weighted Moving Average Control Schemes with Variable Sampling Intervals". Presented at the American Statistical Association (ASA) Winter Meetings (with Michael S. Saccucci), San Diego, California, January 1989.

"Enhanced Exponentially Weighted Moving Average Control Schemes". Presented at the 53rd IMS Annual Meeting/ 2nd World Congress of the Bernoulli Society (with Michael S. Saccucci and Jim M. Lucas), Uppsala, Sweden, August 1990.

"Control Charts with Variable Sampling Intervals". Presented at the Louisiana State University- Medical Center, New Orleans, October 1990.

"CUSUM Charts with Variable Sampling Intervals". Presented at the Fall Technical Meetings of the American Society for Quality Control/ American Statistical Association as the Technometrics Featured Paper, Richmond, Virginia, October 1990.

"Improved Switching Rules in Control Charts Using Variable Sampling Intervals". Presented at the Florida Chapter of the ASA Meetings, Gainesville, Florida, January 1991.

"The Switching Behavior of VSI Control Charts." Presented in the Department of Statistics, University of Southwestern Louisiana, Lafayette, February 1991.

"Improved Switching Rules in Control Charts Using Variable Sampling Intervals". Presented at the Joint Statistical Meetings of the ASA, Atlanta, August 1991.

"Control Charts with Variable Sampling Intervals." Invited paper presented at the Mathematics Department, Stochastic Division, Ulm University (Germany), July 1992.

"The Behavior of $\bar{X}$, R , and Extreme-Value-Control Charts in the Case of Mixture Alternatives." (jointly with Hans Wolff). Presented at the Joint Statistical Meetings of the ASA, Boston, August 1992.

"The Behavior of Some Control Charts in the Case of Mixture Alternatives." Presented at the Louisiana State University Medical Center, New Orleans, February 1993.

"The Behavior of Some Control Charts in the Case of Mixture Alternatives." Presented at the International Statistical Institute meetings, Firenze, Italy, August 1993.

"Some Aspects of Control Charts with Variable Sampling Intervals." Invited paper presented at the Hamburg Bundeswehr University, Germany, October 1993.

"The Behavior of Some Control Charts in the Case of Mixture Alternatives." Presented at the Mathematics Department, Ulm University, Germany, October 1993.

"Some Nonparametric Control Charts Based on the Sign Statistics." Presented at the Mathematics Department, Ulm-Hohenheim-Wuerzburg Conference on Stochastic Processes, Ulm University, Ulm, Germany, December 1994.

"EWMA Control Charts for the Extremes." Invited paper presented at the International Conference on Statistical Methods and Statistical Computing for Quality and Productivity Improvement, Seoul, South Korea, August 1995.

"Fractional Factorials: An Overview." Seminar presented to staff and faculty of the Ulm University Biometry and Medical Documentation Department, Ulm, Germany. May 1996.

"Some Control Charts Based on the Extremes." Presented at the 4Wuerzburg-Umea Conference in Statistics, University of Wuerzburg, Germany, May 1996.

"The EWMA Control Chart For the Smallest and Largest Observation." Presented in the Industrial and Systems Engineering Department, Georgia Tech, November 1996.

"Some Nonparametric Control Charts for Monitoring Process Variability." Presented at the Joint Statistical Meetings of the ASA, Anaheim, California, August 1997.

"Nonparametric Control Charts for Variability." Invited talk. Presented at the Dept. of Applied Statistics, the University of Minnesota, April 1998.

"Smoothed Tolerance Limits." (jointly with S. J. Lee). Presented at the Joint Statistical Meetings of the ASA, Dallas, Texas, August 1998.

"Some New Distribution-free Control Charts". Presented at the Economics Department, Europe-Viadrina University, Frankfurt (Oder), Germany, November 1999.

"Nonparametric Control Charts for Variability". Presented at the Mathematics Department, Ulm University, Ulm, Germany, December 1999.

"Nonparametric Control Charts". Presented at the 5th. International Conference for Statistics, Combinatorics, and Related Areas, Mobile, Alabama, December 1999.

"Smoothed Tolerance Limits and Autocorrelation". Presented at the Second Southern Conference on Computing, Hattiesburg, MS, October 2000 (jointly with K. Li).

"The Use of Smoothed Tolerance Limits in Screening White Blood Cells." This invited talk was presented with Dr. F. Wahab from the American Red Cross at the Vienna Meetings of the International B.E.S.T. group for safer blood transfusion, Vienna (Austria). (2000)

"EWMA Tolerance Limits". Presented at the Magdeburg Pfingsttagung, Magdeburg, (Germany). (June 2001)

"Tolerance Limits and Autocorrelation". Presented at the Applied Statistics Conference, University of Michigan, Ann Arbor (2002).

"Multivariate Control Charts for Variability" Presented at the Joint Statistical Meetings of the American Statistical Association, San Francisco, (August, 2003).

"The MaxMin Chart with Variable Sampling Intervals". Presented at the Florida ASA Meetings, held at Florida State University, Tallahassee (2004).

“Multivariate Control Charts Based on the Extremes”. Presented at the National Institute for Standards (NIST), May 2004.

“Multivariate Tolerance Limits”. Presented at the German Statistical Association Meetings in Bielefeld, Germany (March 2007).

“New Control Charts for Location and Dispersion.” Presented at the 56th Session of the International Statistical Institute, Lisbon, Portugal, (August 2007).

“Using an interactive learning environment in a multivariate statistics course” Presented at the Florida Chapter of the American Statistical Association Meetings (University of Central Florida, Orlando), February 2009.

“Using an Interactive Learning Environment in Graduate Mathematics Sciences Courses”. The presentation was given at the Mathematical Association of America (MAA) in Fort Myers (February 2009).

“Epidemiological Mapping of AYA Thyroid Cancer in Florida”. Greehey Children Cancer Research Institute Symposium 20 at the University of Texas, San Antonio. February 25-26, 2010.

“Epidemiological Mapping of AYA Non-Hodgkins Lymphoma Cancer Rates in Florida”. Greehey Children Cancer Research Institute Symposium 20 at the University of Texas, San Antonio. February 25-26, 2010.

“Discussion of Epidemiologic Mapping of Florida Childhood Cancer Clusters,” Special Presentation to the Florida Surgeon General, Florida Deputy Secretary of Health, Florida Department of Health, and members of the Center for Disease Control. Tallahassee, Florida, March 2010.

“Update on the Epidemiological Mapping of Childhood Cancers in Florida.” American Society for Pediatric Hematology Oncology, April 7-10, 2010. Montreal, Quebec, Canada.

“A Cluster Analysis of Childhood cancer rates in Florida”. Talk presented at the German University in Cairo, May 2010

“Should Graduate Mathematics Courses Be Taught Fully Online?” Annual Meeting of the American Association of University Professors, Washington DC, June 9-12, 2010.

“A Study on Synchronous Distance Teaching in a Math MS Program.” Kuiyuan Li, Raid Amin, Josaphat Uvah. Annual Conference on Higher Education Pedagogy. 2011.

“A Cluster Analysis of Carcinogenic Air Pollution in Louisiana.” Talk presented at the Mathematics Department, University of New Orleans. (2011)

“A Cluster Analysis of Crime Rates in the USA”. Talk presented at the German University in Cairo, May 2011.

“A Geospatial Cluster Analysis of Incidence Rates of Pediatric Cancers in Florida: 2000-2008.” Target Meeting’s 1st World Cancer Online Conference, January 12-14, 2012.

“On Synchronous Distance Teaching in a Mathematics MS Program. “2012 Joint Mathematics Meetings in Boston, MA. January 2012.

“A Cluster Analysis of Air Quality and Water Quality data for Florida”. Talk presented at the German University in Cairo, May 2012.

“A Cluster Analysis of Cancer Rates in Florida”. Talk presented at the University of Massachusetts at Amherst, October 2012.

“An Ecological Study of Associations between Cancer Rates and Quality of Air and Streams.” Target Meeting’s 2nd World Cancer Online Conference, January 8-11, 2013.

“Applied Research with Spatial Analysis”, Department of Mathematics, University of New Orleans, April 10-11, 2013.

“An Ecological Study of Associations between Cancer Rates and Quality of Air and Streams”, 7th International Workshop on Simulation, Rimini, Italy June 21-25, 2013.

“A USA Map for Carcinogenic Air Pollution”, Target Meeting’s 3rd World Cancer Online Conference, January 21-24, 2014.

“Cancer Clusters in Florida: 2000-2010 (with material on air quality and stream integrity)”. Workshop “**New Approaches in Environmental Statistics**“ presented at the Viadrina University, Frankfurt an der Oder, Germany (June 12-13, 2014).

“Carcinogenic Air Pollution in the USA”. Workshop “**New Approaches in Environmental Statistics**“ presented at the Viadrina University, Frankfurt an der Oder, Germany (June 12-13, 2014).

“A Cluster Analysis of Carcinogenic Air Pollution in the USA: From Counties to Census Tracts to Block Groups to Blocks” Association of American Geographers' Annual Meeting in Chicago, April 20-23, 2015.

“A cluster analysis of carcinogenic air pollution in the USA”. Spatial Statistics: Emerging Patterns 9-12 June 2015, Avignon, France.

“A Cluster Analysis of Pediatric Cancer Incidence Rates in Florida: 2000-2010”— Raid Amin, University of West Florida ; Michael Hendryx, Indiana University ; Matthew Shull, University of West Florida ; Alexander Bohnert, Nuremberg University-Erlangen. Joint Statistical

Meetings (Seattle), *Are There Cancer Clusters in Florida? Five Answers* — Topic Contributed Papers, Section on Statistics in Epidemiology. August 2015.

“A Multi-Resolution Sequential Cluster Analysis of Carcinogenic Hazard Scores in the USA.”. (R Amin and T Charlot) The 2016 Annual Meeting of the American Statistical Association Florida chapter (at FSU), February 12-13, 2016.

“A Cluster Analysis of Pediatric Cancer Rates in Florida”. Invited talk presented at the Department of Mathematical Sciences, Georgia Southern University, February 26, 2016.

“A Multi-Resolution Cluster Analysis of RSEI Hazard Scores”. Presented at the 2016 TRI National Training Conference, October 19-21, 2016. Washington DC.

“Geographic Clusters of Pediatric Cancers in Florida”. Presented at the National Cancer Institute (NIH), October 20, 2016, Washington DC.

“County-level Patterns of Female Breast Cancer Incidence and Mortality in the Contiguous USA: 2009-2013”. Presented at the annual Florida Chapter Meetings of the American Statistical Association, Jacksonville, Florida, February 5-6, 2017.

“Geographic Clusters of Reported Violent Crimes in the USA: 2000-2012”. Invited presentation at the 2017 Annual Meeting for the American Association for the Advancement of Science (Serving Science Through Science Policy), Boston, February 17-20, 2017.

“A Cluster Analysis of Breast Cancer rates”. Presented at the 2017 Annual Meeting for the American Association of Geographers, Boston, April 10-14, 2017.

“A Cluster Analysis of EPA Air Pollution Data”. **Invited presentation** at the Institute for Health Metrics and Evaluation, Seattle, Washington, May 4, 2017.

“A Multi-Resolution Cluster Analysis of Risk Screening Environmental Indicators Carcinogenic Data”. **Invited Presentation** at Mathematics Department, Ulm University, Ulm, Germany, May 12, 2017.

“A cluster analysis of USA Superfund Sites and Associated Cancer Risk.” (Rome, Italy). 7th International Conference on Environmental Pollution and Remediation (ICEPR'17). June 8-10, 2017.

“A Quality of Life Index for Counties in the USA: 2010”. Invited talk at the Biostatistics Department, Louisiana State University Health Sciences Center, New Orleans. September 18, 2017.

“Geographic Clusters of Cancer Mortality Rates in the Contiguous USA:2000-2014”. Institute for Health Metrics and Evaluation, University of Washington, March 19, 2018.

HONORS AND AWARDS

- Mu Sigma Rho National Statistical Honor Society.
- Pi Mu Epsilon Mathematical Honor Fraternity.
- Received an Outstanding Performance and Achievement Award authorized by the 1990 Florida Legislature.
- Nominated for teaching award, UWF, 1991.
- Nominated for teaching award, UWF, 1994.
- Invited Technometrics Paper, Fall Technical Meetings of the American Society for Quality Control/ American Statistical Association, October 1990.
- Invited Visiting Professor, Department of Mathematics, Ulm University, Germany, August 1992.
- Invited Visiting Professor, Department of Mathematics, Ulm University, Germany, Dec. 1994.
- Invited talk, International Conference on Statistical Methods and Statistical Computing for Quality and Productivity Improvement, Seoul, Korea, August 1995.
- Invited Visiting Professor, Department of Mathematics, Ulm University, Germany, May 1996.
- Teaching Incentive Program Award, UWF, 1996.
- UWF Distinguished Research and Creative Activities Award, 1998.
- Teaching Incentive Program Award, UWF, 2004.
- Summer Research Award, UWF, Summer 2004.
- Invited Visiting Professor, German University in Cairo, Egypt, May 2010.
- UWF "Small Research Grant", Summer 2010.
- Invited Visiting Professor, German University in Cairo, Egypt, May 2011.
- UWF "Small Research Grant", Summer 2011.
- University of West Florida Center on Aging award (with Stephen Bridges) for "Elderly Homicide-Suicide in Florida: A cluster Analysis Using SaTScan"
- Invited Visiting Professor, German University in Cairo, Egypt, May 2012.
- The Economist (December 12, 2013) featured an article about my sharks research with Erich Ritter.
- ***Distinguished University Professor, 2014.***

GRANTS/CONTRACTS

- University of West Florida Research Council Summer Grant. Summer 1988.
- Contract for training and consulting, Monsanto Chemical Company. Summer 1989.
- Contract for training and consulting, Monsanto Chemical Company. Fall 1989.
- Travel grant to Sweden from the Institute of Mathematical Statistics. Summer 1990.
- Developed and conducted a training program for quality technicians at the Naval Air Station (Pensacola) as a preparation for taking the Quality Technician Certification Examination offered through the American Society for Quality Control (January 1990-August 1990).
- University of West Florida Research Council Summer Grant. Summer 1991.

- Contract for a course on the design of experiments, Monsanto Chemical Company, Spring 1992.
- Contract for a course on the design of experiments, Sverdrup Technology, Fall 1992.
- University of West Florida Research Council Summer Grant. Summer 1993.
- Contract for a course on statistical quality control, Monsanto Chemical Company, Summer 1994.
- National Science Foundation International Travel Grant for travel to Germany, 1997-1999.
- University of West Florida Summer Grant to Develop Grant Proposal, Summer 2000.
- University of West Florida Summer Grant to Develop Grant Proposal, Summer 2001.
- University of West Florida Summer Grant to Develop Grant Proposal, Summer 2002.
- University of West Florida Summer Grant to Develop Grant Proposal, Summer 2004.
- University of West Florida Summer Grant to Develop Grant Proposal, Summer 2006.
- James & Esther King Biomedical Research Program Grant, Subcontractor at UWF, "Identifying and Addressing Cancer Outcome Disparities in Breast and Lung Cancer." 2010-2014. (\$125,000)
- Florida Center for Brain Tumor Research (FCBTR) in partnership with Accelerate Brain Cancer Cure (ABC2) 2010 Research Grant Program. An Epidemiological Surveillance of Brain Cancer in Florida. (\$75,000)
- Contracts with Sacred Heart Hospital System for consulting with all resident physicians at SHHS. (2010-present)
- Contracts with West Florida Hospital for consulting with resident pharmacists (2014-present)

SERVICE TO THE PROFESSION

Reviewer for Technometrics

Reviewer for Journal of Quality Technology

Reviewer for Journal of Statistical Computation and Simulation

Reviewer for International Statistical Review

Reviewer for the Scandinavian Journal of Statistics.

Reviewer for Communications in Statistics: Theory and Methods.

Reviewer for Communications in Statistics: Computation and Simulation.

Reviewer for Pakistan Journal of Statistics.

Reviewer for Management Science.

Reviewer for IIE Transactions.

Reviewer for the International Journal of Health Geographics.

Reviewer for PLOS ONE.

Reviewer for American Journal of Public Health

Reviewer for International Journal of Environmental Research and Public Health

Reviewer for Pediatric Infectious Disease Journal.

SERVICE

Graduate Committee, Dept. of Mathematics and Statistics, August 1991-1997.

Undergraduate Committee, Dept. of Mathematics and Statistics, August 1987-1995, 1997.

College of Arts and Sciences Election Committee, 1989.
 University International Education Committee, 1989-1992.
 University Computer Services Committee, 1989-1993.
 Colloquium Committee, Department of Mathematics and Statistics, 1990-1992.
 Consultant to faculty and students at UWF in addition to local industry.
 Assisted in the development of a Master's program in applied statistics with emphasis on statistical quality control.
 Assisted in the organization of the Florida Chapter Meetings of the American Statistical Association at UWF, February 1989.
 Personnel Committee, Department of Mathematics and Statistics, 1992-Present
 Faculty Advisor, UWF Statistics Association, 1990-Present.
 Co-chair, search committee for new Director of International Education at UWF, 1992.
 University Faculty Senate, 1993-1996
 College Personnel Committee, College of Science and Technology, 1992-1995.
 Search committee for the Director of International Education at UWF, 1994.
 Professorial Excellence Program selection committee, UWF, 1996.
 University Personnel Committee, 1997.
 1998 College of Science and Technology TIP Award Committee.
 Departmental Undergraduate Committee, 2000.
 College of Arts and Sciences Council, 2000-2014
 Departmental Personnel Committee, 2000-now
 University Faculty Personnel Committee, 2000.
 University Faculty Senate (Academic Council, Graduate Committee), 2001-2002
 College of Arts and Sciences Council Chair, 2002
 College of Arts and Science Dean Search- Ex-officio Member 2002-2003
 UWF Provost Search Committee (2003)
 College of Arts and Sciences Council Member/Chair (2001-2004).
 Director of the UWF Statistics Center (2003-2011).
 University Personnel Committee (2003-2005).
 Clinical Investigations Review Board (Sacred Heart Hospital), Member 2005-2011
 CAS Council 2011-2014
 Faculty Senate 2011-2015
 CAS Personnel Committee 2011-2013
 Faculty Senate 2017-present

CURRICULUM VITAE

DR. SUBHASH CHANDRA BAGUI

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Pensacola, FL 32514, USA
Phone: (850) 474-2286 (Office)

mail: sbagui@uwf.edu

CITIZENSHIP: US citizen

ADMINISTRATIVE BACKGROUND:

Graduate Student Advisor, Department of Mathematics and Statistics, 2003- 2011.

Co-Chair, UWF SACS Quality Enhancement Plan (QEP), 2004-2005.

Chair, QEP Evaluation committee.

One year Leadership Enhancement Activities & Development (LEAD) program at UWF, 2005-2006.

Academic Leadership Fellow, Internship: Provost office, UWF, 2006-2007.

Special Project: Course redesign with NCAT STA2023-Elements of Statistics, 2007-08.

Administrative Fellow, Deans office, UWF, 2008-2009.

ACADEMIC BACKGROUND:

Ph.D., *Statistics*, Department of Statistics and Applied Probability, University of Alberta, Edmonton, Canada, 1989.

P.G. Dip. in S.Q.C. & O.R., (*Post Graduate Diploma in Statistical Quality Control and Operations Research*), Indian Statistical Institute, India, 1983.

9. **M. Stat.**, *Statistics*, Indian Statistical Institute, India, 1982.

B.Sc., (*Hons. in Statistics*), University of Calcutta, India, 1979.

ACADEMIC EXPERIENCE:

10. **Professor**, tenured, Department of Mathematics and Statistics, The University of West Florida (August, 1999-Present)

11. **Associate Professor**, tenured, Department of Mathematics & Statistics, The University of West Florida (August, 1995-August, 1999)

Assistant Professor, tenure track, Department of Mathematics & Statistics, The University of West Florida (August, 1990-August, 1995).

Teaching & Research Associate, Department of Statistics and Applied Probability, University of Alberta (October, 1989-June, 1990).

Graduate Teaching Assistant and Statistics Lab Coordinator, Department of Statistics and Applied Probability, University of Alberta (January, 1983-September, 1989).

COURSES TAUGHT AT THE UNIVERSITY OF WEST FLORIDA:

Elements of Statistics, Mathematical Statistics I & II, Biostatistics, Advanced probability, Operations Research I & II, Stochastic Processes, Multivariate statistics, Special topics in Statistics, Analysis of variance, Designs of sample survey, Precalculus, Quantitative Methods for Business, Applied Statistics for MBA, Nonparametric Statistics, Calculus-I.

RESEARCH INTERESTS:

Classification and discrimination- parametric, robust, and nonparametric; k-NN and k-RNN classification rules; Statistical pattern recognition; Density estimation; Tolerance regions; Design and analysis of variance; Variance component; Statistical tables; Quality control; Reliability; Data mining, Central Limit Theorem and Applied Probability.

PUBLICATIONS:

Books

1. **Bagui, S.C.** (1993). *Handbook of Percentiles of the Non-Central t-distributions*, (400 pages), CRC-Press, Boca Raton, Florida.
2. **Bagui, S.C.**, *Modern Probability and Distribution Theory*, (in preparation), Ch1-Ch11 completed.

Expository Articles

1. **Bagui, S. C.** and Hemasinha, R. (1998). Srinivasa Aiyangar Ramanujan, Biographical Encyclopedia of Mathematicians, Donald Franceschetti, Editor, Marshall Cavendish Corp., NY, pp 445-447.

Research Articles (*Published/Accepted for publication*)

1. **Bagui, S.C.** (1993). Classification Using First Stage Rank Nearest Neighbor Rule for Multiple Classes. *Pattern Recognition Letters*, **14**, 537-544.
2. **Bagui, S.C.** (1993). Classification of Multiple Observations Using A Rank Nearest Neighbor Rule. *Pattern Recognition Letters*, **14**, 611-617.
3. **Bagui, S.C.** (1993). An NN Classification Rule for Multiple Observations. *Calcutta Statistical Association Bulletin*, **43**, Nos. 169-170, 45-55.
4. **Bagui, S.C.**, Mehra, K.L., and Rao, M.S. (1995). A Nearest Neighbor Classification rule for Multiple Observations based on a Sub-sample Approach. *Sankhya A*, **57**, Part 2, 316-332.

5. **Bagui, S.C.** and Pal, N.R.(1995). A Multistage Generalization to the Univariate Rank Nearest Neighbor Classification Rule. *Pattern Recognition Letters*, **16**, 602-614.
6. **Bagui, S.C.**, Bhaumik, D.K. and Parnes, M. (1996). One-sided Tolerance Limits for Unbalanced m-way Random-Effects Anova Models. *Journal of Applied Statistical Science*, **3**, 135-148.
7. **Bagui, S.C.** and Kushary, D.(1997). Minimax Classification Rule for Tail Contaminated Models. *Statistics and Decisions*, **15**, 357-364.
8. **Bagui, S.C.**, Mehra, K.L. and Vaughn, B.K. (1997). An M-stage version of the k-RNN rule in statistical discrimination. *Journal of Statistical Planning and Inference*, **65**(2), 323-333.
9. Ghosh, D., Patel, A., **Bagui, S.C.** and Hemasinha, R.. (1997). Construction of Balance Ternary Designs and Proper Balanced $(m+1)$ -ary designs. *Journal of Applied Statistical Science*, **6**(4), 257-264.
10. Ghosh, D., Thannippara, A. and **Bagui, S.C.** (1997). Some Latin Squares Type Designs. *Journal of Statistical Research*, **31**(1), 117-121.
11. **Bagui, S.C.** and Vaughn, B. (1998). Classification based on k -rank nearest neighbor rule. *Statistics and Decisions*, **16**, 181-189.
12. Ghosh, D. K. and **Bagui, S.C.** (1998). Identification of confounded design and its interactions. *Journal of Applied Statistics*, **25**(3), 349-356.
13. **Bagui, S.C.** and Datta, S. (1998). Some Useful Properties of the Bayes Risk in Classification. *Calcutta Statistical Association Bulletin*. **48**, Nos. 189-190, 83-91.
14. Ghosh, D. K., Patel, A.C. and **Bagui, S.C.**(1998). Balanced p-ary and partially balanced p-ary designs through latin square PBIB designs. *Parisankhyan Samikkha-An International Journal of Statistics*. **5**(1), 75-83.
15. **Bagui, S.C.** and Mehra, K.L. (1999). Classification of Multiple Observations using Multi-stage rank nearest Neighbor Rule. *Journal of Statistical Planning and Inference*, **76**, Nos. 1-2, 163-183.
16. Ghosh, D. K., Thannippara, A. and **Bagui, S.C.** (1999). BTIB designs through general efficiency balanced Row-Column designs and their optimalities. *Journal of Applied Statistical Science*, **8**(4), 197-204.
17. Chaudhuri, G., and **Bagui, S.C.** (2000). Study of the reliability function of bridge-structure system in a random environment. *Parisankhyan Samikkha-An International Journal of Statistics*, **7**(1), 1-12.
18. Thannippara, A., Kurian, B., Ghosh, D., and **Bagui, S.C.** (2000). Hypercubic designs and E-optimality. *Journal of Statistical Research*, **34**(1), 77-81.
19. **Bagui, S.C.** and Ghosh, D.K. (2001). Efficiency balanced designs through reinforcement, *Journal of Applied Statistics*, **28**(6), 649-658.
20. Ghosh, D.K., Bhatt, M.G. and **Bagui, S.C.** (2001). Maximum likelihood estimation of multivariate covariance components for the balanced two-way random effect model, *Far East Journal of Theoretical Statistics*, **5**(2), 233-244.
21. **Bagui, S.C.** and Ghosh, D.K. (2002). Construction of supersaturated designs. *Journal of Statistical Theory and Applications*, **1**(1), 27-34.
22. Piotrowski, C., **Bagui, S.** and Hemasinha, R.(2002). Development of a measure on statistics anxiety in graduate-level psychology students. *Journal of Instructional Psychology*, **29**(2), 97-100.

23. Thannippara, A., Kurian, B., Ghosh, D., and **Bagui, S.C.** (2002). λ -singly linked block designs through non-adaptive hypergeometric group designs for identifying at most two defectives and their optimalities. *Journal of Applied Statistical Science*, **11**(1), 1-8.
24. Bhaumik, D.K., Khattree, R. and **Bagui, S.C.** (2002). Statistical tests for nested designs under partial balance. *Communications in Statistics*, **31**(10), 1795-1813.
25. Ghosh, D.K., **Bagui, S.C.**, and Patel, A.C. (2002). Systematic methods of constructing singular group divisible designs and a new class of rectangular type PBIB designs. *Journal of Statistical Theory and Applications*, **1**(4), 253-262.
26. **Bagui, S.C.**, Bagui, S.S., Pal, N.R. and Pal, K. (2003). Breast Cancer Detection Using Rank Nearest Neighbor Classification Rules. *Pattern Recognition*, **36**(1), 25-34.
27. **Bagui, S.C.** and Bhaumik, D.K. (2004). Computing Jacobians using exterior products, *Statistical Methodology*, **1**(1-2), 71-80.
28. Bagui, S.S. and **Bagui, S.C.** (2004). An Algorithm and Code for Computing Exact Critical Values for the Kruskal-Wallis Nonparametric One-way ANOVA. *Journal of Modern Applied Statistical Methods*, **3**(2), 498-503.
29. **Bagui, S.C.** and Bhaumik, D.K. (2004). Glimpses of Inequalities in Probability and Statistics. *International Journal of Statistical Science*, **3**, (Special Issue), 9-15.
30. Thannippara, A., Thomas, S. Ghosh, D. and **Bagui, S.** (2004). Construction of E-optimal generalized group divisible designs through certain hypercubic designs. *Journal of Statistical Theory and Application*, **3**(4), 299-306.
31. Bagui, S.S. and **Bagui, S.C.** (2005). An Algorithm and Code for Computing Exact Critical Values for Friedman's Nonparametric ANOVA. *Journal of Modern Applied Statistical Methods*, **4**(1), 312-218.
32. Mandal, S., Ghosh, D., and **Bagui, S.** (2006). Nested partially balanced incomplete block designs, *Journal of Statistical Theory and Applications*, **5**(1), 41-42.
33. **Bagui, S.C.**, Bagui, S.S., Chatterjee, A., and Mehra, K.L. (2006). Classification with multiple independent measurements under separate sampling scheme, *Statistical Methodology*, **3**(3), 234-251.
34. Matin, M.A. and **Bagui, S.** (2006). Review of inference in Logistic Regression Model Parameters, *Model Assisted Statistics and Applications*, **1**(3), 189-177.
35. Thomas, S., Thannippara, A., **Bagui, S.C.**, and Ghosh, D.K. (2006-2007). Determination of Optimal Block Designs with Pre-assigned Variance for Elementary Contrasts, *Journal of Modern Applied Statistical Methods*, **5**(2), 390-394.
36. Bagui, S.S. and **Bagui, S.C.** (2006-2007). Computing Percentiles of Skew-Normal Distributions, *Journal of Modern Applied Statistical Methods*, **5**(2), 575-588.
37. Mandal, S., Ghosh, D., Chhug, S., and **Bagui, S.** (2007) Diallel crosses with block sizes three, *Journal of Applied Statistical Science*, **15**(2), 215-227.
38. Thannippara, A., Kurian, B., Ghosh, D.K., **Bagui, S.C.**, and Mandal, S. (2007). Hypercubic Designs and Applications, *Statistical Papers*, **48**(3), 503-508.
39. Bagui, S., **Bagui, S.C.**, Pal, N.R., and Matin, M.A. (2007). Comparison between k -NN and k -RNN Classification Rules: A Monte Carlo Simulation Study, *Journal of Statistical Research*, **41**(1), 69-79.
40. Joseph, O.C., Thannippara, A., Ghosh, D.K., and **Bagui, S.C.** (2007). Optimal and Partially Efficiency Balanced Designs, *International Journal of Statistical Sciences*, **6**, 239-258.

41. Matin, M.A. and **Bagui, S.C.** (2008). Small-sample performance of estimators and tests in logistic regression with skew-normally distributed explanatory variables, *Journal of Statistical Theory and Applications*, **7**(2), 151-167.
42. Thannippara, A., Joseph, O.C., Ghosh, D.K., **Bagui, S.C.**, and Mandal, S. (2008). E-optimal group divisible (GD) designs, *Journal of Statistical Studies*, **27**, 51-56.
43. Mandal, S., Ghosh, D.K., Sharma, R.K. and **Bagui, S.C.** (2008). A complete class of balanced incomplete block designs $\beta(7, 35, 15, 3, 5)$ with repeated blocks, *Statistics and Probability Letters*, **78**, 3338-3343.
44. Bagui, S, Just, J. and **Bagui, S.C.** (2009). Deriving strong association mining rules using a dependency criterion, the lift measure, *Int. J. Data Analysis Techniques, and Strategies*, **1**(3), 297-312.
45. Thannippara, A., Sreejith, V., **Bagui, S.C.**, and Ghosh, D.K. (2009). A new method of construction of E-optimal generalized group divisible designs (GGDD), *Journal of Scientific Research*, **1**(1), 38-42.
46. Hemasinha, R. and **Bagui, S.C.** (2009) Generating all rational orthogonal matrices via Householder transformations, *JU Journal of Science*, **32**(1), 47-56.
47. **Bagui, S.C.**, Mehra, K.L., and Rama Krishnaiah, Y.S. (2010). Sequential nonparametric fixed-width confidence intervals for conditional quantiles, *Sequential Analysis*, **29**(1), 1-19.
48. Bagui, S., Just, J., **Bagui, S.**, and Hemasinha, R., (2010). Using a Cosine-type Measure to Derive Strong Association Mining Rules, *International J. Knowledge Engineering and Data Mining*, **1**(1), 69-83.
49. Caffrey, J.M., Landing, W.M., Nolek, S.D., Gosnell, K., Bagui, S.S., and **Bagui, S.C.** (2010). Atmospheric deposition of mercury and major ions to the Pensacola (Florida) watershed: spatial, seasonal, and inter-annual variability, *Atmospheric Chemistry and Physics*, **10**, 1-24.
50. Bagui, S., Islam, M., and **Bagui, S.C.** (2011), An Architecture for Query Optimization Using Association Rule Mining. *International Journal of Knowledge Based Organizations (IJKBO)*, **1**(4), 33-55.
51. Bagui, S., Brown, J., Caffrey, J., and **Bagui, S.C.** (2012). Designing a Relational Database for tracking and analysis of Atmospheric Deposition of Mercury and Trace Metals in the Pensacola Bay Watershed, accepted for publication in *International Journal of Sustainable Society*, **4**(3), 240-265.
52. Ghosh, D.K., Joseph O.C., Thannippara, A., and **Bagui, S.C.** (2012). E-optimal semi-regular graph designs and partially efficiency balanced designs, *Journal of Statistical Theory and Applications*, **11**(1), 47-61.
53. Mandal, S., Zhu, C., Ghosh, D.K., and **Bagui, S.C.** (2012). Characteristics of BIBD and Complementary BIBD in Terms of Triplets of Treatments, *Journal of Applied Statistical Science*, **19**(3), 67-71.
54. **Bagui, S.C.**, Bhaumik, D.K., and Mehra, K.L. (2013). A few counter example useful in teaching central limit theorems, *The American Statistician*, **67**(1), 49-56.
55. Bagui, S.S., Sean, Sprafkin, and **Bagui, S.C.**, (2013). Calculating support, confidence and lift in multi-relational XML data, *International Journal of Data Analysis and Information Systems*, **5**(1), 13-27.

56. **Bagui, S.C.**, Bagui, S.S., and Hemasinha, R. (2013). Nonrigorous proofs of Stirling's formula, *Mathematics and Computer Education*, **47**(2), 115-125.
57. Mandal, S., Ghosh, D.K., and **Bagui, S.C.** (2013). Robustness of a class of variance balanced designs against the loss of one blocks, *Utilitas Mathematica*, **92**, 221-234.
58. Ghosh, D.K., Bhatt, M.G., and **Bagui, S.C.** (2014). Analysis of covariance of reinforced balanced incomplete block designs with a single explanatory variable, *Journal of Statistical Theory and Applications*, **13**(3), 235-246.
59. Ghosh, D.K., Sreejith, V., Thannippara, A., and **Bagui, S.C.** (2015). A new method for construction of MV-optimal generalized group divisible designs with two groups, *International Journal of Science and Research*, **4** (2), 27-30.
60. **Bagui, S.C.** and Mehra, K.L. (2015). On the convolution property of a heavy tailed stable distribution, *Journal of Statistics Applications and Probability Letters*, **2**(3), 173-182.
61. Ghosh, D.K., Sreejith V., and **Bagui, S.C.** (2015). A new method of construction of E-optimal generalized group divisible designs with two groups, *International Journal of Statistics and Applications*, **5**(3), 120-123.
62. **Bagui, S.C.**, Bagui, S.S., and Hemasinha, R. (2016). The statistical classification of breast cancer data, *International Journal of Statistics and Applications*, **6**(1), 15-22.
63. **Bagui, S.C.** and Mehra, K.L. (2016). Convergence of Binomial, Poisson, and Negative-Binomial to Normal distribution: Moment Generating Function Techniques, *American Journal of Mathematics and Statistics*, **6**(3), 115-121.
64. Dickinson, R., Perry, S., and **Bagui, S.** (2016). Using rotation transformations to maximize the coefficient of determination in simple linear regression models, *European Journal of Mathematics and Computer Science*, **3**(1), 66-78.
65. Chowdhury, M.A., Mandal, S., Ghosh, D.K., and **Bagui, S.C.** (2017). Optimal Structure (k) Designs for Comparing Test Treatments with a Control, *Journal of Statistical Theory and Applications*, **16**(1), 96-107.
66. **Bagui, S.C.** and Mehra, K.L. (2017). Convergence of binomial to normal: Multiple proofs, *International Mathematical Forum*, **12**(9), 399-411.
67. Bagui, S., Fang, X., Kalaimannan, E., **Bagui, S.**, Joseph, S. (2017). Comparison of machine-learning algorithms for classification of VPN network traffic flow using time-related features, *Journal of Cyber Security Technology*, **1**(2), 108-126.
68. Fang, X., Bagui, S., and **Bagui, S.C.** (2017). Improving virtual screening predictive accuracy of human kallikrein 5 inhibitors using machine learning models, *Computational Biology and Chemistry*, **69**, 110-119.
69. **Bagui, S.C.** and Mehra, K.L. (2017). Convergence of known distributions to limiting normal or non-normal distributions: An elementary ratio technique, *The American Statistician*, **71**(3), 1-6.
70. McMillan, M., Liebens, J., and **Bagui, S.C.** (2018). A statistical model for streambank erosion in Northern Gulf of Mexico coastal plain, *Catena*, **165**, 145-156.

71. Bagui, S., John, S., Baggs, J., **Bagui, S.** (2018). A Parallel Implementation of Information Gain Using Hive in conjunction with MapReduce for Continuous Features, PAKDD 2018, LNAI 11154, 1-12.

72. Bagui, S., Mishra, A., Compo, J., Nandi, D., **Bagui, S.** (2018). Quality Analysis of Streaming Audio over Mobile Networks, *Transactions on Networks and Communications*, **6**(6), 1-14.

Articles on Statistics Education (for K-12 Statistics) (Refereed)

1. **Bagui, S.C.** (2012). How Tall and How Many, *ASA Statistics Education Web (STEW)*, <http://www.amstat.org/education/STEW/>. March 12, 2012.
2. **Bagui, S.C.** (2012). Step Into Statistics, *ASA Statistics Education Web (STEW)*, <http://www.amstat.org/education/STEW/>. March 12, 2012.
3. **Bagui, S.C.** and Richardson, M. (2012). Bear Hugs, *ASA Statistics Education Web (STEW)*, <http://www.amstat.org/education/STEW/>. July 02, 2012.

Submittals and in Preparations

1. **Bagui, S.C. and Mehra, K.L.**, On the Elementary Ratio Technique for Proving Convergence of Known Distributions, under revision.
2. **Bagui, S.C., Dickenson, R., and McGee, R.**, A mathematical investigation of Blank and Gegax's methodology for constructing two-part electric rates: Effect of correlation between energy & demand on the allocation of demand-related costs to the fixed customer charge, submitted for publication.
3. **Bagui, S.C. and Mehra, K.L.**, Convergence of Negative Binomial to Normal: Multiple

PRESENTATIONS:

1. "Nearest Neighbor Classification Rules for Multiple Observations", presented at the Department of Mathematics and Statistics, The University of West Florida, Pensacola, April, 1990.
2. "Nearest Neighbor Classification Rules for Multiple Observations", presented at the Department of Mathematics and Statistics, The University of Central Arkansas, Conway, April, 1990.
3. "A Note on Rank Nearest Neighbor Classification Rule", presented at The Department of Mathematics and Statistics, The University of West Florida, November, 1990.
4. "Rank Nearest Neighbor Classification Rules", presented at Florida Chapter of ASA Meeting, The University of Florida, Gainesville, January, 1991.
5. "Nearest Neighbor Classification Methodology", presented at Louisiana State University Medical Center, April, 1991.
6. "Classification Using Rank Nearest Neighbors", presented at the 1991 Joint Statistical Meetings, ASA, Atlanta, Georgia, August, 1991.
7. "A Nearest Neighbor Classification rule for Multiple Observations based on a Sub-sample Approach", presented at Florida Chapter of ASA meeting, The University of Central Florida, Orlando, February, 1992.
8. "Nearest Neighbor Classification Methodology for Multiple Observations", presented at The University of South Alabama, Department of Mathematics and Statistics, Mobile, Alabama, April, 1992.
9. "Nearest Neighbor Classification Rule for Multiple Observations", presented at The

University of Toledo, Toledo, Ohio, June 1992.

10. "*Classification of Multiple Observations using Nearest Neighbors*", presented at The Classification Society of North America's Annual Meeting, University of Pittsburgh, June 1993.
11. "*Classification based on k -rank nearest neighbor rule*", presented at the 1st IMS North American New Researchers Meeting, Berkeley, California, August 1993.
12. "*Classification of Multiple Observations using Multi-Stage Rank Nearest Neighbor Rule*", presented at The Joint Statistical Meeting, ASA, IMS, San Francisco, August, 1993.
13. "*Classification based on k -rank nearest neighbor rule*", presented at The University of Alberta, Department of Statistics, Edmonton, Canada, August, 1993.
14. "*Statistical Classification based on k -rank nearest neighbor rule*", Presented at Florida chapter of ASA, The University of Florida, Gainesville, February, 1994.
15. "*Minimax Classification rule for tail contaminated models*", Presented at First conference on applied statistical science, Rider University, New Jersey, May, 1995.
16. "*One-Sided Tolerance Limits for Unbalanced m -way Random-Effect ANOVA Models*", Presented at The Joint Statistical Meeting, ASA, IMS, Chicago, August, 1996.
17. "*Some useful properties of the Bayes risk in classification*", Presented at The ASA Florida Chapter Meeting, The University of West Florida, Pensacola, February, 1997.
18. "*Some useful properties of the Bayes risk in classification*", Presented at 3rd International Triennial Calcutta Symposium on Probability and Statistics, December 26-28, 1997.
19. "*Statistical classification using multistage k -rank nearest neighbor rule*", Presented at International conference on recent advances in statistics and probability organized by ISI and Bernoulli society for mathematical statistics and probability, December 29, 1997-January 01, 1998.
20. "*Statistical classification using multistage k -rank nearest neighbor rule*", Presented at Annual meeting of the Florida chapter of the ASA. The University of Central Florida, Orlando, February, 1998.
21. "*NN and RNN Classification Rules: A Review*", Presented at Sixth International Conference On Statistics, Combinatorics and Related Areas, Forum for Interdisciplinary Mathematics, University of South Alabama, Mobile, December 18-20, 1999.
22. "*Study of the Reliability of Bridge-structure System in a Random Environment*", Presented at Florida Chapter of the ASA annual meeting, February 18-19, 2000, Florida State University, Tallahassee, FL.
23. "*A Nonrigorous Proof of Stirling's Formula*", Presented at Mathematical Association of America (MAA) West Regional Meeting, April 07, 2000, The University of West Florida, Pensacola, FL.
24. "*Reliability in A Random Environment*", Rite of Passage Lecture Series, The University of West Florida, April 17, 2000.
25. "*Breast Cancer Detection Using Rank Nearest Neighbor Classification Rules*", Presented at Florida Chapter of the ASA annual meeting, February 09-10, 2001, University of North Florida, Jacksonville, FL.
26. "*Breast Cancer Detection Using Rank Nearest Neighbor Classification Rules*", Presented at The University of South Alabama, Department of Mathematics and Statistics, Mobile, Alabama, April, 2001.
27. "*Breast Cancer Detection Using Rank Nearest Neighbor Classification Rules*", Presented at ASA Joint Statistical Meetings, Atlanta, August, 2001.
28. "*Computing Jacobians using Exterior Products*", Presented at MAA Northwest Florida Regional Meeting, University of West Florida, Pensacola, FL, November, 2002.
29. "*Biostatistics: recent trend and a presentation on breast cancer detection*" Presented at Department of Public Health, Georgia Southern University, Statesboro, GA, April, 2003.
30. "*Breast Cancer Detection Using Rank Nearest Neighbor Classification Rules*", Presented at Indian Statistical Institute, Calcutta, India, August, 2003.

31. “*Careers in Statistics*”, Presented at University of West Florida, Mathematics Club, Pensacola, FL, September, 2003.
32. “*Careers in Statistics*”, Presented at Pensacola High School, Pensacola, FL, November, 2003.
33. “*Careers in Statistics*”, Presented at Pine Forest High School, Pensacola, FL, September, 2003.
34. “*An Algorithm and Code for Computing Exact Critical Values for the Kruskal-Wallis Nonparametric One-way ANOVA*”, Presented at SEA STARS, UWF, Pensacola, 2004.
35. “*Breast Cancer Detection Using Rank Nearest Neighbor Classification Rules*”, Presented at Department of Mathematical and Statistical Sciences, University of Alberta, Edmonton, Canada, July, 2004.
36. “*Breast Cancer Detection Using Rank Nearest Neighbor Classification Rules*”, Presented at Department of Mathematics and Statistics, University of Calgary, Calgary, Canada, July, 2004.
37. **Invited Presentation:** “*Breast Cancer Detection Using Rank Nearest Neighbor Classification Rules*”, Thirty-Fourth Annual Lloyd Roeling Mathematics Conference/LA Chapter of ASA meeting, University of Louisiana at Lafayette, November 2004.
38. “*Breast Cancer Detection Using Rank Nearest Neighbor Classification Rules*”, Institute of Human and Machine Cognition, Pensacola, FL, March 2005.
39. “*An Algorithm and Code for Computing Exact Critical Values for the Friedman’s Nonparametric ANOVA*”, Presented at SEA STARS, Poster, UWF, Pensacola, 2005.
40. **Invited Session:** “*Classification with multiple independent measurements under a separate sampling scheme*”, Presented at Twelfth International Conference On Statistics, Combinatorics, Mathematics and Applications, Forum for Interdisciplinary Mathematics, Auburn University, December 2-4, 2005.
41. “*An Algorithm and Code for Computing Percentiles of Skew-Normal Distributions*”, Presented at SEA STARS, Poster, UWF, Pensacola, 2006.
42. “*Computing Jacobians Using Exterior Products*” Presented at Florida Chapter of the ASA annual meeting, February 23-24, 2007, The University of West Florida.
43. “*Nonrigorous Proofs of Stirling’s Formula*” Presented at Mathematical Association of America (MAA) Florida Chapter Local meeting, November 30, 2007, The University of West Florida.
44. “*Breast Cancer Detection Using Rank Nearest Neighbor Classification Rules*”, Presented at 2nd Annual Prob/Stat Day at UMBC. April 26, 2008, *Invited Presentation*.
45. “*Some Aspects of Skew-Normal Distribution*”, Presented at Mathematics Association of America (MAA) Florida Chapter Meeting, Nov. 21, 2008, The University of West Florida.
46. “*Some Aspects of Skew-Normal Distribution*”, Presented at Florida Chapter of ASA Meeting, The University of Central Florida, Orlando, February 20-21, 2009.
47. “*Breast Cancer Detection Using Rank Nearest Neighbor Classification Rules*”, Presented at The University of Illinois at Chicago, Department of Biostatistics, Chicago, March 13, 2009.
48. “*Nearest Neighbor and Rank Nearest Neighbor Classification: Application to breast cancer data*”, Department of Biostatistics, H. Lee Moffitt Cancer Center, USF, Tampa, July 02, 2010.
49. “*Spatial and Temporal Trends in Atmospheric Deposition of Mercury, Trace Metals and Major Ions in the Pensacola Bay Watershed*”, Hg Measurements Meeting, February 2-3, 2011, University of West Florida, Pensacola, FL.
50. *Database development for tracking and analysis of atmospheric data*, Hg Measurements Meeting, February 2-3, 2011, University of West Florida, Pensacola, FL.
51. “*Role of Climate and Local Emission Sources in the Wet Deposition of Mercury and Major Ions in the Pensacola Bay Region*”, The 10th International Conference on Mercury as a Global Pollutant, poster, July 24-29, 2011, Halifax, Canada.
52. “*Nonrigorous Proofs of Stirling’s Formula*” Presented at Florida Chapter of the ASA Meeting, The University of North Florida, Jacksonville, February 04-5, 2012.

53. *“Nonrigorous Proofs of Stirling’s Formula”*, Presented at Florida Chapter of the MAA Meeting, The University of West Florida, Pensacola, FL, 2012.
54. *“A Few Counter Examples Useful in Teaching Central Limit Theorems”*, Poster Presentation at Florida Chapter of the ASA Annual Meeting, University of Florida, Gainesville, FL, February 07, 2014.
55. *“Convergence of Binomial, Poisson, and Negative-Binomial to Normal distribution: Moment Generating Function Techniques”*, Poster Presentation at Florida Chapter of the ASA Annual Meeting, University of South Florida, Tampa, FL, Feb 06-07, 2015.
56. *“Convergence of Binomial to Limiting Normal Distribution: Multiple Proofs”*, Poster Presentation at Florida Chapter of the ASA Annual Meeting, Florida State University, Tallahassee, FL, Feb 12-13, 2016.
57. *“Convergence of Binomial to Limiting Normal Distribution: Multiple Proofs”*, Poater Presentation at Annual Meeting of Student Scholars Symposium and Faculty Research Showcase, University of West Florida, Pensacola, FL, Apr 21, 2016.
58. *“Convergence of Binomial to Limiting Normal Distribution: Multiple Proofs”*, Poster Presentation at 20016 Joint Statistical Meetings, Chicago, July 30 - August 4, 2016.
59. *“Using rotation transformations to maximize the coefficient of determination in simple linear regression models”*, Poster Presentation at Florida Chapter of the ASA Annual Meeting, Mayo Clinic, Jacksonville, FL, Feb 3-4, 2017.
60. *“Testing for the significance of the intraclass correlation in the analysis of family data”*, Poster Presentation at Florida Chapter of the ASA Annual Meeting, Mayo Clinic, Jacksonville, FL, Feb 3-4, 2017.
61. *“Using rotation transformations to maximize the coefficient of determination in simple linear regression models”*, Poster Presentation at Annual Meeting of Student Scholars Symposium and Faculty Research Showcase, University of West Florida, Pensacola, FL, Apr 20, 2017.
62. *“Testing for the significance of the intraclass correlation in the analysis of family data”*, Poster Presentation at Annual Meeting of Student Scholars Symposium and Faculty Research Showcase, University of West Florida, Pensacola, FL, Apr 20, 2017.
63. *“Testing for the significance of the intraclass correlation in the analysis of family data”*, Poster Presentation at The 5th Workshop on Biostatistics and Bioinformatics, Georgia State University, May 5-7, 2017.
64. *“Statistics: The Hottest Career of the 21st Century”*, The University of West Florida, Department of Mathematics and Statistics, October 27, 2017.
65. *“Convergence of known distributions to normality or non-normality and a few counter examples in teaching CLT”*, The University of Windsor, Department of Mathematics and Statistics, Canada, December 07, 2017.
66. *“Convergence of known distributions to normality or non-normality and a few counter examples in teaching CLT”*, Presented at The University of South Alabama, Department of Mathematics and Statistics, March 13, 2018.
67. *“Using locality sensitive hashing to improve the KNN algorithm in the MapReduce framework”*, Poster presented at 2018 ACMSE conference, Eastern Kentucky University, March 29-31, 2018.
68. *“A hybrid genetic algorithm for network intrusion detection”*, Poster presented at 2018 ACMSE conference, Eastern Kentucky University, March 29-31, 2018.
69. *“Convergence of Known Distributions to Normality or Non-normality: An Elementary Ratio Technique”*, Presented at Florida Chapter of the ASA 2018 Annual Meeting, Florida Gulf Coast University, Fort Myers, Apr 06-07, 2018
70. *“Using locality sensitive hashing to improve the KNN algorithm in the MapReduce framework”*, Poster Presentation at Annual Meeting of Student Scholars Symposium and Faculty Research Showcase, University of West Florida, Pensacola, FL, Apr 19, 2018..

71. “A hybrid genetic algorithm for network intrusion detection”, Poster Presentation at Annual Meeting of Student Scholars Symposium and Faculty Research Showcase, University of West Florida, Pensacola, FL, Apr 19, 2018.
72. “Convergence of known distributions to normality or non-normality and a few counter examples in teaching CLT”, Presented at The University of Sydney, School of Mathematics and Statistics, June 01, 2018.
73. “A Parallel Implementation of Information Gain Using Hive and MapReduce for Continuous Features”, The 22nd Pacific-Asia Conference on Knowledge Discovery and Data Mining, (PAKDD), Australia, June 3-6, 2018.
74. “Convergence of Known Distributions to Normality or Non-normality: An Elementary Ratio Technique” Poster Presentation at 2018 Joint Statistical Meetings, Vancouver, July 28 - August 2, 2018.
75. “Convergence of known distributions to normality or non-normality and a few counter examples in teaching CLT”, Department of Statistics, Calcutta University, Kolkata, Aug 14, 2018.
76. “Convergence of known distributions to normality or non-normality and a few counter examples in teaching CLT”, Indian Statistical Institute, Applied Statistics Unit, Kolkata, Aug 21, 2018.
77. “Convergence of known distributions to normality or non-normality and a few counter examples in teaching CLT”, Department of Statistics, Presidency University, Kolkata Aug 23, 2018.
78. “Convergence of known distributions to normality or non-normality and a few counter examples in teaching CLT”, Department of Mathematical and Statistical Sciences, University of Alberta, Edmonton, Canada, Nov 09, 2018.

THESIS /DISSERTATION SUPERVISION:

Chair, Master's Thesis: **Two**

1. **Brandon K. Vaughn**, “Classification based on k-rank nearest neighbor rule”, 1994
2. **Jacob Anderson**, “Trend feature and additive feature selection methods for churn models under property and casualty insurance business paradigms” 2018.

Member, Master’s Thesis Committee: **Six**

Chair, Doctoral Dissertation Committee: **one**

Xiuqing Wang Li, “Critical factors on students’ mathematics performance in high school”, 2006

Member, Doctoral Dissertation Committee: **Three**

RESEARCH IN PROGRESS:

Control charts in presence of trend

A general approach to constructing supersaturated designs

PROFESSIONAL SERVICE:

I. Editorships

1. **Associate Editor**: Journal of Applied Statistical Science.
2. **Editorial Board Member**: Journal of Modern Applied Statistical Methods, 2002-08.
3. **Associate Editor**: ASA STatistics Education Web (STEW), *online journal of K-12 statistics lesson plans* (past)
4. **Editorial Board Member**, *Journal of Statistics: Advances in Theory and Applications* 1912-
5. **Associate editor**: *American Journal of Mathematical and Management Sciences*, 1912-
6. **Editorial Board Member**, *Journal of Statistics Applications and Probability Letters*. 1914-

7. **Editorial Board Member**, *Journal of Statistics Applications and Probability*, 1914-
8. **Editorial Board Member**, *American Journal of Modeling and Optimization*, 1915-
9. **Editorial Board Member**, *American Journal of Applied Mathematics and Statistics*, 1915-
10. **Editorial Board Member**, *Journal of Advanced Statistics*, 2016-
11. **Regional Editor**, *Asian Journal of Mathematics and Statistics*, 2016-

II. Papers Reviewed For:

1. Scandinavian Journal of Statistics, 2. Pattern Recognition Letters, 3. Sankhya, 4. IEEE Transactions on Fuzzy Systems, 5. IEEE Transactions on Knowledge and Data Engineering, 6. Communications in Statistics, 7. Journal of Agricultural, Biological and Environmental Statistics. 8. Journal of Applied Mathematics and Decision Sciences, 9. Journal of Modern Applied Statistical Methods. 10. Journal of Statistical Planning and inference. 11. Applied Mathematics Letters. 12. International Journal of Mathematics and Mathematical Sciences. 13. American Statistician. 14. Model Assisted Statistics and Applications. 15. International Journal of Statistical Sciences. 16. Statistics and Probability Letters. 17. Journal of American Statistical Association. 18. American Journal of Mathematics and Statistics, 19. International Journal of Probability and Statistics. 20. Administration and Policy in Mental Health and Mental Health Services Research. 21. American Journal of Modeling and Optimization. 22. Statistics in Medicine. 23. Statistical Analysis and Data Mining. 24. Journal of Applied Probability and Statistics. 25. Punjab University Journal of Mathematics, 26. Journal of Statistical Theory and Practice, 27. American Journal of Mathematics and Statistics.

III. Conferences

1. Co-organizer of **Florida Chapter ASA Conference'93**, and Chaired sessions.
2. *Organized a mini Conference on "Environmental Statistics"* at USA, 1996, and Chaired sessions.
3. Chaired a session at **Florida Chapter ASA Conference'97**.
4. *Organized an invited session* at Sixth International Conference On **Statistics, Combinatorics and Related Areas '99** and chaired the **session**.
5. *Member of organizing committee*: Ninth International Conference on Statistics, Combinatorics and Related Areas, University of Wollongong, Australia, 2001.
6. *Member of Technical Program Committee*: **International** Conference on Fuzzy Systems, 2002 AFSS, Calcutta, India, February , 2002.
7. Co-organizer of **Florida Chapter ASA Conference'02**, and conducted statistics workshop for school teachers.
8. Co-organizer of **Florida Chapter ASA Conference'07** and coordinated student paper competition.
9. Organizer of the **Florida Chapter of the ASA 2013** annual meeting, Chair.

III. Examiner

1. External and Internal evaluator for **Tenure** and **Promotion** cases.

IV. Organization

1. **Chapter Representative**, Florida Chapter of the ASA (2013-2015)

2. **President**, Florida Chapter of the ASA (2011-2013)
3. **Vice President**, Florida Chapter of the ASA (2009-2011)
4. **Secretary and Treasurer**, Florida Chapter of the ASA (2007-2009)

BOOK REVIEW:

1. Title: Applied Multivariate Data Analysis, Vol. I and II, by J.D. Jobson.
2. Title: An Introduction to Probability and Statistics, by G. Roussas
3. Combining Pattern Classifiers: methods and Algorithms, by Ludmila Kuncheva, *Technometrics*, 2005, vol. 47, no. 4, pp. 517 – 518.

SOFTWARE EXPERIENCE:

Fortran, Pascal, SAS, BMDP, SPSSX, MINITAB, MYSTAT, HTML, R

STATISTICAL CONSULTANCY:

1. Member of UWF Statistics Center
2. Statistics consultant of Biology department at UWF
3. Statistical consultancy done for Nemours Children clinic, Pensacola, FL.

UNIVERSITY SERVICE:

1. Served on Graduate Committee, Department of Mathematics & Statistics, The University of West Florida, 1990-1992, 1999-2002.
2. Member of Election Committee, College of Arts & Sciences, The University of West Florida, 1991-1992.
3. Served on Undergraduate Committee, Department of Mathematics & Statistics, The University of West Florida, 1992.
4. Member of Colloquium Committee, Department of Mathematics & Statistics, The University of West Florida, 1992-1994.
5. Member of Academic Standards Committee of the College of Science and Technology, The University of West Florida, 1992-1995.
6. Member of University Admissions Committee, 1993-1995.
7. Member of University Facilities and Planning Committee, 1993-1995.
8. Member of University Library Committee, 1993-1994.
9. Member of Department Library Committee, 1993-1995.
10. Served on Departmental hiring committee.
11. TIP (1994/95) and TIP (1995) committee
12. College faculty personnel committee (1995 -97, 97-2000).
13. Departmental Graduate Committee, Chair, 1995-1997, 1999-2003.
14. Election committee, Chair, COST (1996-97, 1998-2001)
15. College resource allocation subcommittee (1995-98)
16. University Library committee (1995-97)
17. University Growth and Development Committee (1997-2000, 2001).
18. Market Equity Committee (2000-)

19. CAS Council member (2000-2001), 2006-2009.
20. CAS faculty personnel (tenure and promotion) committee, (2000-2003), Chair 2001-2002.
21. Faculty senate member, 2001-2004.(CCR committee member), 2007-2010, AC member.
22. Academic Council Committee (2001-2004).
23. College election committee member, 2001-2004.
24. Member, Provost/VP for academic affairs hiring committee, 2002-2004.
25. Co-Chair, SACS Quality Enhancement Program, 2004-2005
26. Member, President's Award for Leadership in Diversity, 2004.
27. University faculty personnel committee, 2004-2007, 2013-2016.
28. Member, Departmental hiring committee, 2004-2005.
29. Member, Search Committee for AVP for academic affairs 2004-2005.
30. Honorary Awards and Recognition Committee, 2005-2008.
31. Faculty and Administration Marshal, 2007.
32. Member, Senate and Academic Council, 2007-2010.
33. Member, Senate and Academic Council, 2010-2013.
34. College faculty personnel committee, 2010-2013.
35. Vivian Johnson Scholarship Committee, 2010-13.
36. College Resource Allocation Committee 2012-2015.
37. COSEH Council Committee, 2014-2019.
38. College personnel committee, 2016-2019.
39. Faculty Senate, Sep 2018-May 2019.
40. Academic Council, Sep 2018-May 2019.

STUDENT ORGANIZATION

South Asian Students Association (SASA): *Faculty Advisor*, 2003-Present

COMMUNITY SERVICE:

Judge in 41st West Panhandle Regional Science and Engineering Fair, 1996.

Judge in 42nd West Panhandle Regional Science and Engineering Fair, 1997.

Judge in 45th West Panhandle Regional Science and Engineering Fair, 2000.

Organized UWF, SASA and India Cultural Center Inc. *Tsunami Relief Benefit*, 2004.

Co-Director, 54th Annual West Panhandle Regional Science and Engineering Fair, 2009.

CAS Coordinator, 55th Annual West Panhandle Regional Science and Engineering Fair, 2010

PROFESSIONAL MEMBERSHIPS:

Fellow, American Statistical Association

Fellow, The Royal Statistical Society

Member, American Statistical Association (ASA)

Institute of Mathematical Statistics (IMS)

Classification Society of North America

Life member, Calcutta Statistical Association Bulletin

Life member, International Indian Statistical Association

HONORS, GRANTS AND AWARDS:

1. Invited to present my work at STATISTICS '91 CANADA Conference.
2. Nominated by Student Academic Committee for *Distinguished Teaching Award* in 1990-91.
3. **IMS** travel grant'93, \$500.00.
4. *Teaching Incentive Program* (TIP) Award, 1993-1994 .
5. CoST summer research grant'96, \$2,672.00.
6. John Pace **Visiting Scientist** Grant'96, \$4,000.00.
7. Grant for Conference on "**Environmental Statistics**" from USA and UWF '96, \$3,000.00.
8. Nominated by student government committee for *Distinguish Teaching Award* in 1996, (semifinalist).
9. CoST summer research grant'97, \$3,048.00.
10. Name in Who'sWho in Science and Engineering, 4th edition, Marquis Who's Who, NJ, 1998/99.
11. CoST summer research grant'98, \$3917.00.
12. UWF Statistics Center *Consultancy*, \$1,300.00.
13. UWF *Distinguish Teaching Award* in 1999.
14. Name in Who's Who in the World 2000, 17th edition, Marquis Who's Who, NJ.
15. Life member of *Calcutta Statistical Association Bulletin*.
16. *Teaching Incentive Program* (TIP) Award, 1999-2000.
17. *Excellence in Undergraduate Teaching and Advising Award*, 1999-2000.
18. *Golden Apple Award for Teacher of the year*, 2000-2001.
19. CAS summer curriculum development grant'01, \$5000.00.
20. UWF *Summer Research Grant*'2002, \$7500.00.
21. Submitted a proposal entitled, "Mining breast cancer data" to US DOD for approx. \$450,000.00 in total for 3 years (not funded, will be resubmitted).
22. *Distinguished Research and Creative Activity Award*, 2004.
23. *Excellence in Undergraduate Teaching and Advising Award*, 2003-2004.
24. *Teaching Incentive Program* (TIP) Award, 2003-2004.
25. Grant awarded for **GTA**, UWF graduate studies and research, \$1,200.00, 2005-2006.
26. **NSF REU** Grant (NSF-DMS 0636933): "*Combinatorial and Statistical Problems in Molecular Biology*", \$55,690 × 2, (co-PI), Summer, 2007-08.
27. **Sr. Key Personnel, Electric Power Research Inst. (EPRI) Grant**: "Atmospheric deposition of mercury and trace metals in the Pensacola Bay Watershed Phase III", \$287,020, 2009-10.
28. **Sr. Key Personnel, Electric Power Research Inst. (EPRI) Grant**: "Atmospheric deposition of mercury and trace metals in the Pensacola Bay Watershed Phase IV", 2010-11.
29. 2011 *Faculty Distinguished Research & Creative Activities Award*.
30. 2013 *Outstanding Service Award*, The Florida Chapter of the ASA.
31. UWF Faculty Catalyst Initiative Awards, \$5,000.00, 2013-14.
32. **32. Fund Raising Activity**: Instrumental in bringing (in excess of) 5 million dollars to name the COH., 2017
33. UWF *Distinguished University Professorship (DUP)* Award, 2017.
34. **Gulf Power Company Grant**; "Mathematical proof showing the effect of electric billing determinant correlation on Blank and Gegax methodology", **PI**: Subhash Bagui, May-Dec, 2017, Total amount: \$10,000.00.

35. Grant submitted to NAS as **Senior Key Personnel**, Title: *Integrated Water Quality and Habitat-Use Monitoring to Evaluate Restoration Success in the Florida Panhandle Estuaries*, PI: Jane Caffrey, Amount: 1.4M, **PI**-Jane Caffrey. (not Funded)
36. Grant submitted to Spokes: SMALL: SOUTH (NSF). Interactive automated data analytics using the Hadoop Frame work –IADA, PI: Lakshmi Prayaga, Co-PI: Subhash Bagui, Sikha bagui Total amount: \$384,499.00. (not Funded)
37. Grant submitted to NSF Grant: RET Site: Computer Science Research Experiences for Teachers Focused on Security of Internet of Things (IoT) and Data Analysis, PI: Sikha Bagui, Co-PI: Subhash Bagui, Total Amount: \$599,190, October, 2017, (not Funded).

Curriculum Vitae

Anthony Okafor

Department of Mathematics and Statistics
University of West Florida
11000 University Parkway
Pensacola, FL 32514

Email: aokafor@uwf.edu
Office: (850) 474-3280

Education

Ph.D. *Industrial and Systems Engineering* University of Florida Dec 2005
Research Area: Operations Research, Data Mining and Applied Optimization
Advisor: Distinguished Professor Panos Pardalos
Dissertation: Entropy Based Techniques with Applications in Data Mining

M. Eng. *Industrial and Systems Engineering* University of Florida Aug 2001

M.A. *Mathematics* University of West Florida April 1991

B. Eng. *Mechanical Engineering* University of Nigeria, Nsukka June 1988

RESEARCH INTEREST

- Entropy Optimization
- Data Mining
- Operations Research
- Applied Optimization
- Statistics in Public Health
- Big Data and Machine Learning

ACADEMIC/PROFESSIONAL EXPERIENCE

- Assistant Professor of Statistics, Department of Mathematics and Statistics, University of West Florida, August 2018 to present.
- Administrative Fellow, Hal Marcus College of Science and Engineering (HMCSE), August 2018 to present.
- Director of Graduate Programs, Department of Mathematics and Statistics, University of West Florida, August 2015 – August 2018
- Lecturer, Department of Mathematics and Statistics, University of West Florida, Pensacola, Florida 2013 – July 2018

HONORS, AWARDS AND GRANTS

- PI: Memiah, P. Collaborators: Okafor, A., Stone, L., Mbizo, J., & Sutton, M.A. UWF Instructional Technology Enhancement Project (ITEP) award, Office of the Provost, UWF: *Enhancing Student High Impact Practices Through Big Data Analysis and Systems-Level Thinking* (2018-2020), \$33,077.
- PI: Sutton, M.A. Collaborators: Bennett, W., Stone, L., Okafor, A., Marten, M., Memiah, P., & Mbizo, J. Center for Research and Economic Opportunity (CREO) award, UWF: *Research Equipment Funding Transdisciplinary Informatics Research with Faculty, Students, and Citizen Scientists* (2015-2018), \$42,900.
- Nominated SGA Teacher of the Year Award, 2017
- 2016 Mathematical Association of America (MAA) State of Florida Teacher of the Year Award
- Diabetes and Cardiovascular Disease in Older Adults (R03) NIH Grant, Co-Pi; 2016 (Not funded)
- Nominated SGA Teacher of the Year Award, 2016
- 1996 Teaching Incentive Program (TIP) Award
- ITEP Project Proposal \$7000 (Not funded), 2016
- SCAC faculty Grant, \$1400, 2013

PUBLICATIONS

Journal Articles

- Donley, T., King, D., Nyathi, N., **Okafor, A.**, & Mbizo, J., (2018) "Socioeconomic Status, Family Functioning and Delayed Care Among Children With Special Needs", *Social Work in Public Health*, 33:6, 366-381, DOI: 10.1080/19371918.2018.1504703.
- Mbizo, J., **Okafor, A.**, Sutton, M., et al. "Complementary and Alternative Medicine Use Among Persons with Multiple Chronic Conditions: Results from the 2012 National Health Interview Survey" ID BCAM-D-18-00772, *BMC Complementary and Alternative Medicine*, 2018.
- Ilunga Tshiswaka, D., Donley, T., **Okafor, A.** et al. "Prostate and Colorectal Cancer Screen Uptake among US and Foreign_born Males: Evidence form the 2015 NHIS Survey" *Journal of Community Health* (2016). doi:10.1007/s10900-016-0296-1
- Mbizo, J., **Okafor, A.**, Sutton, M., "Complementary and Alternative Medicine Use by Normal Weight and Obese Patients with Arthritis or Other Musculoskeletal Diseases:

Results from the 2007 NHIS Survey" ID JACM-2014-0390; Journal of Alternative and Complementary Medicine, 2016.

- Li, k., Amin, R., Uvah, J., **Okafor, A.**, "A Study of College Readiness for College Algebra Readiness" Journal of Mathematical Sciences & Mathematics Education, 2010.

Book Chapters

- Mbizo, J., **Okafor, A.**, Sutton, M., et al. Integrative and Complementary Medicine Use in Adults With Chronic Lower Back Pain, Neck Pain, and Arthritis/Musculoskeletal Diseases" Bioactive Food as Dietary Interventions for Arthritis and Related Inflammatory Diseases, 2018 (In Press).
- Okafor, A., Pardalos, P., Ragle, M., Data Mining Via Entropy and Graph Clustering; Data Mining in Biomedicine, Springer, 2007.
- Okafor, A., P. Pardalos., Entropy Clustering; Theory and Algorithm for Cooperative Systems Vol. 4: 339-3551, 2004.
- Okafor, A., Grundel, D., "A Best Target Strategy: Strategy for Unmanned Systems in the Uncertain Battlespace," Proceeding of 2nd AIAA "Unmanned Unlimited" Systems, Technologies and Operations, September 2003.

Submitted/In Preparation Journal Articles

- Donley, T., King, D., **Okafor, A.**, & Mbizo, J., Predictors of delayed care among disabled adults: Results from the California Health Interview Survey, (#DHJO-D-18-00190) Disability and Health Journal, Disability and Health Journal, 2018. (In review)
- A. Okafor, P. Memiah, J. Mbizo., "Racial and Gender Differences in HIV Testing when Risk Factors Are Present: Evidence from the 2012 BRFSS" (submitted/returned for revision)
- M. Grossmann, A. Okafor., "Knapsack and ARIMA Models for Optimal Portfolio Allocation" (In preparation). DHJO-D-18-00190
- J. Kennedy, S. Burchette, T. Barraco, A Okafor " Predictive Modeling: Pitcher and Batter Matchups in the MLB (In preparation)

Book Contract (Caribbean Islands Book Project, 2015 - March 2016)

- Lead author for 11th Grade Mathematics Text, 12 chapters
- Co-author for 10th Grade Mathematics Text, 13 Chapters

PEER REVIEWED ACCEPTED ABSTRACTS FOR NATIONAL RESEARCH PRESENTATIONS

- Abstract # 3187.0, Adherence to Self-Management Practices Among Diabetic Adults Who Attended a Diabetes Education Class. Atlanta, Nov 2017.
- Abstract # 4082.0, Disparities in Adherence to Vision Screening For Patients With Diabetes Related Eye Problems. Atlanta, Nov 2017.
- Abstract # 2041.1, Adult Asthma: Disparities and Association between Comorbidities and Accessing Emergency Care. Atlanta, Nov 2017.

- Abstract #3089.0, Gender Based Violence (GBV) Among Rural and Urban Women in Zimbabwe, Denver, Nov 2016
- Abstract #3352.0, Complementary and Integrative Health Practice(s) Among US Women with Menopausal Symptoms with concurrent Cancer Diagnoses, Denver, Nov. 2016
- Abstract #337119, Prevalence and Determinants of Behavioral Problems in Children with Special Health care Needs, APHA, Chicago, 2015
- Abstract #337120, Unmet Dental Care Needs Children with Special Health Care Needs, APHA, Chicago, 2015
- Abstract #330759, Use of Complementary and Alternative Medicine (CAM) Among Patients with Cancer, Diabetes and Hypertension in the United States, Chicago, 2015
- Abstract #330714, Use of Dental Services Among Adults with Diabetes and Hypertension: Results From a National Survey, Chicago, 2015
- Abstract #309778, Regional and Gender Differences in HIV Testing when Risk Factors Are Present: Evidence from the 2012 BRFSS, APHA, New Orleans, 2014
- Abstract #289948, Use of complementary and alternative medicine (CAM) among patients with arthritis, and other musculoskeletal diseases in the United States, APHA, Boston 2013
- Abstract #289944, Use of Complementary and Alternative Medicine (CAM) among Patients with Hypercholesterolemia, Diabetes and Hypertension in the United States, APHA, Boston, 2013
- Abstract #271451, Gender Differences in Use of Preventive Eye Care Services Among Diabetic US Adults, Evidence from the BRFSS, 2010, APHA, San Francisco, 2012
- Abstract #270055, Variations in Use of Preventative Dental Services Among Diabetic US Adults, Evidence from the BRFSS, 2010, APHA, San Francisco, 2012
- Abstract #270056, Use of Influenza and Pneumococcal Vaccine in People with Diabetes, APHA, San Francisco, 2012
- Abstract #270064, Socio-demographic Determinants of Teeth Loss among Diabetic and Non-Diabetic American Adults, BRFSS, 2010, APHA, San Francisco, 2012
- Abstract #250499: Prevalence of No known Major Risk Factors for Cardiovascular and Cerebrovascular Disease Among Residents of US Gulf Coast States, APHA Washington DC, 2011

RECENT REGIONAL CONFERENCES AND SYMPOSIUM

- Allynn Burns and Anthony Okafor, Modeling Average Summer Precipitation in the Southeastern Region of the United States using Factors which Compound the NASH, SURP symposium August 2018
- *Audrey Moore, Tony Moore, Anthony Okafor, Justice Mbizo, Modeling Dental Services Among Adults with Diabetes and Hypertension: Results From a National Survey. UWF Symposium UWF, 2018.
- *Stacey Burchette, A Hybrid Metaheuristic for the Traveling Salesman Problem, UWF Symposium, 2018.
- *Rose Belany, Anita Totem, Anthony Okafor and Justics Mbizo, Food Insecurity and Medication Non-Compliance among the Elderly in the United States. UWF Symposium, 2018
- Tiffany Donley, Anthony Okafor, Justics Mbizo, Dionne King, Prevalence and Association Between Parental Social Support and Behavioral Problems Among Children with Special Healthcare Needs, AcademyHealth Annual Research Meeting (ARM), New Orleans, June 2017.
- *Zackary Bruley and Anthony Okafor, Preliminary Exploratory Analysis of the Effect of the North Atlantic Subtropical High (NASH) on Warm Season Rainfall, SURP Symposium UWF, August 2017.
- *Stacey Burchette, *Joseph Kennedy, *Talia Barraco and Anthony Okafor, Hybrid Solution Methods to Combinatorial Optimization Problems, MAA Florida, February, 2017
- *Harrell Shawn; *Joseph Kennedy; *Talia Barraco; *Stacey Burchette, Anthony Okafor, Baseball Analytics: Determining an Optimal Play Schedule ; MAA, Sarrasota, FL, 2017
- Moore Audrey; Moore Tony; Anthony Okafor, Justice Mbizo, Modelling Dental Services Among Adults with Diabetes and Hypertension: Results from a National Probability Survey, UWF Symposium, 2017
- *Galivan Aymee; Anthony Okafor, County-Level Determinants of Domestic Migration in Florida: Do Economic and Non-Economic Factors Matter? UWF Symposium, 2017
- *Jonathan Guy; Anthony Okafor; The Effect of workshops on the performance of Calculus I students at UWF, MAA, Sarrasota FL, Feb. 2017

THESIS SUPERVISION

- Joseph Kennedy, An Analysis of Similarity Constrained K Shortest Path Problem, Graduate Master Thesis, 2018
- Manuel Grossmann, Knapsack Optimal Portfolio Allocation Using Autoregressive Integrated Moving Average Models, Graduate Master thesis, 2016

- Elizabeth Allgood, Subclinical Hypothyroidism and Risk for Cardiovascular Disease, Undergraduate Honors thesis, 2014
- Thapelo Ncube, Comparison of the Poisson, Conway-Maxwell and Zero-Inflated Poisson Distributions when Modeling Rare Weather Data, Undergraduate Honors thesis, 2014
- Ruth Ashley, The Effects of Cyclists on Traffic Flow, fall 2013

SUMMER UNDERGRADUATE RESEARCH PROGRAM (SURP) SUPERVISION

- Allynn Burns, Modeling Average Summer Precipitation in the Southeastern Region of the United States using Factors which Compound the NASH, summer 2018
- Zackary Bruley, Preliminary Exploratory Analysis on The Effect of the North Atlantic Subtropical High (NASH) on Warm Season Rainfall, summer 2017
- Jonathan Guy, An Evaluation of the Impact of Quizzes and Workshops on the Performance of Students in Calculus I and the Effect of calculus I&II on Stem Retention for Stem Majors at UWF, summer 2016 (Student awarded \$2500)
- Gregg Stubberfield, Factors Affecting Physical Activities in Children: A Structural Equation Modeling Approach, summer 2015 (Student awarded \$2500)

PROSEMINAR SUPERVISION

Undergraduate Research

- Corey Coates, An Application of Yahtzee in Actuarial Science, fall 2012
- Emily Miller, Game Theory in Military Applications, spring 2012
- Tara Matusz, Time Series Analysis: Using Historical Sales Data to Forecast Sales with an Application to Papa John's Pizza, spring 2012
- Garrett Kelsey, Using Markov Chains in Maximum Likelihood Estimates of Disease Progression, fall 2012
- Latonya Harrington, Time to Echelon Care on Military Survival Rates: A Survival Analysis Approach, fall 2012
- Carly Robins, Regression Analysis in the Presence of Outliers, fall 2012
- Ruth Ashley, Queueing Theory and Performance Measurement, spring 2013
- Cynthia Harmon, Monte Carlo Method in Statistical Hypothesis Testing, spring 2013
- Emmi Welicka, Childhood Obesity: Findings From a national Survey, spring 2013
- Djhenne Dalmacy, Time Series Analysis: Forecasting Currency Exchange Rates using ARIMA and Holt Winters Exponential Smoothing, spring 2014

- Elizabeth Allgood, Subclinical Hypothyroidism and Risk for Cardiovascular Disease, spring, 2014
- Thapelo Ncube, Comparison of the Poisson, Conway-Maxwell and Zero-Inflated Poisson Distributions when Modeling Rare Weather Data, spring, 2014justine may
- Derek Smith, Energy Forecasting with Load Research Data (Gulf Power), spring 2015
- Jessica Peters, Mathematical Modeling of U.S. Domestic Commercial Airline Ticket Prices, spring 2015
- Aimee Patterson, Mathematical Modeling of Putting in Golf with AimPoint Technology, spring 2015
- George Green, Vehicle Routing Problem (VRP), spring 2017
- Aymee Garcia Lopez-Gavilan, Classification of Economic Determinations of Domestic Migration in Florida, spring 2017

Graduate Research

- Karmaker Gaurang, Measuring Relative Efficiencies Of Academic Departments At The University Of West Florida Using Data Envelopment Analysis, Spring 2012
- Matthew Schull, Times Analysis: can the ARIMA Approach be used to Model Hurricanes? fall 2012
- Chelsea Lovrekovic, Evacuating Residents in an Emergency: An Application of the Vehicle Routing Problem, Fall 2012
- Justine Liseth, Time Series Analysis with R: Comparison of Forecasts from ARIMA and Holt-Winters Models, fall 2013
- Joshua Mumau, Non Homogeneous Wave Equation with External Forces, spring 2014
- Kelsey Garrett, Mining Health Care Data: A Decision Tree Approach Using Entropy and Information Gain, spring 2015
- Ravi Mummulla, Food Security in Africa: A Time Series Analysis, summer 2015
- Cynthia Harmon, Applications of Bootstrap Methods, fall 2015
- Justine May, Modeling Length of Stay and Readmission for Patients with Chronic and Acute Renal failure, summer 2015
- Craig O'Neill, Control Charts for Defects in Government Purchase Orders and Contracts, summer 2015
- Olasumbo Alayande, Mathematical Proficiency in Elementary School: A Progression Analysis of High School Graduation and College Readiness, fall 2015
- Misty Bozzacco, Statistical Techniques Utilized in Big Data, spring 2016

- Sunshine Marcado, An Application of Queue Theory to Evaluate The Efficiency Of a Toll Plaza, spring 2016
- Djehenne Dalmacy, Factors Affecting Depression in Adults: Analysis form a Survey using Structural Equation Modeling. Spring 2016
- Carly Robins, Classification Methods on Modeling Length of Stay for Elderly Diabetic Adult Patients, spring 2016
- Tom Duffy, A Statistical Analysis of Home Field Advantage in the English Premier League, fall 2018

SERVICE TO UNIVERSITY, COLLEGE, AND DEPARTMENT

- Member, HMCSE College Counsel, August 2018 to present.
- Advisor, Math Association and Pi Mu Epsilon, 2007 – present.
- Member HMCE Student Engagement Faculty Advisory Board (SEFAB)
- Graduate Advisor, Department of Mathematics and Statistics, University of West Florida, Pensacola, Florida, January 2015 – August 2018
- Science Olympiad, coordinator for “Disease Detective” for high school students, 2014, 2015, 2016, 2017.
- Member, Math Department Undergraduate Committee, 2015-present
- Member, Math Department Graduate Committee, 2015-present
- Member, Academic Standards Committee, 2015-2017
- CSE Scholar mentor, 2015 - present
- Member, General Studies Committee, 2014-July 2016
- Member, Assistant Professor Search Committee, Mathematics and Statistics, 2015-2016
- Member, Assistant Professor Search Committee, Psychology Department, 2015-2016
- Member, Assistant Professor Search Committee, Department of Public Health, 2014-2015
- Member, Lecturer Search Committee, Mathematics and Statistics, 2015-2016
- Member, International Committee, 2012-2014
- Undergraduate Advisor, Department of Mathematics and Statistics, University of West Florida, Pensacola, Florida, January 2001 - 2007.
- Retention Officer, College of Arts and Science, University of West Florida, Pensacola, Florida, January 2000 – 2005.

- Member, Academic Standards Committee, 2009 – 2011.
- Chair, Math Department Undergraduate Committee 2009-2010.
- Chair, Library Committee, 2007-2009
- Member/Chair Proseminar Committee, 2007-2011.
- Member MAA Conference Committee, 2009 – 2011
- Chair MAA Conference Committee 2011-2012

TEACHING

Undergraduate

- College Algebra
- Precalculus Algebra
- Intermediate Algebra
- Math For Liberal Arts
- Elements of Statistics
- Calculus with Business Applications
- Quantitative Methods for Business
- Analytic Geometry and Calculus I
- Analytic Geometry and Calculus II
- Analytic Geometry and Calculus III
- Differential Equations
- Discrete Math
- Mathematical Statistics I
- Mathematical Statistics II
- Matrix and Numerical Methods in Systems Engineering
- Biostatistics
- Applied Statistics
- Proseminar Research Topics

Graduate

- Regression Analysis

- Analysis of Variance
- Reliability Theory
- Biostatistics
- Operations Research I
- Operations Research II
- Statistical Quality Control
- Design and Analysis of Experiment
- Stochastic Processes
- Optimization Theory
- Mathematical Statistics II

PROFESSIONAL SOCIETIES

- APHA, American Public Health Association
- SIAM, Society for Industrial and Applied Mathematics

PROFESSIONAL DEVELOPMENT

- HMCSE Summer Faculty Workshop, Summer 2017
- Broadening Participation Workshop, summer 2015

Online QM Certification (2016)

- Designing a Quality Online Course
- Teaching a Quality Online Course

National Institute of Health (NIH) (2016)

- Certified in “Principles and Practice of Clinical Research”

Samantha R. Seals, PhD

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Education

August 2013	PhD, Biostatistics University of Alabama at Birmingham Advisor: Inmaculada Aban, PhD
August 2008	MS, Mathematical Sciences University of West Florida Advisor: Raid Amin, PhD
May 2006	BS, Mathematics University of West Florida Advisor: Rohan Hemasinha, PhD

Academic Employment

August 2018-Present	Assistant Professor Department of Mathematics and Statistics University of West Florida
August 2016-July 2018	Visiting Assistant Professor Department of Mathematics and Statistics University of West Florida

September 2013-July 2016	Biostatistician III Center of Biostatistics and Bioinformatics Department of Data Science University of Mississippi Medical Center
August 2008-August 2013	T32 Predoctoral Fellow Department of Biostatistics University of Alabama at Birmingham
August 2007-August 2008	Graduate Teaching Assistant Department of Mathematics and Statistics University of West Florida

Teaching Experience

University of West Florida

STA6990	Advanced Statistical Modeling	Summer 2017, 2018
STA6246	Design and Analysis of Experiments	Spring 2017, 2018
STA5176	Statistical Modeling	Fall 2016, 2017, 2018 Spring 2017, 2018, 2019 Summer 2017
STA4173	Biostatistics	Fall 2018 Spring 2019 Summer 2018

STA4222	Sampling Theory	Spring 2018, 2019
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STA2023	Elements of Statistics	Fall 2016, 2017 Spring 2017
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STA5905	Directed Study: Advanced Modeling for Social Scientists	Fall 2018
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GEO6905	Directed Study: Statistical Modeling in MATLAB	Spring 2018
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MAC1105	College Algebra	Fall 2007 Spring 2008 Summer 2008
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University of Mississippi Medical Center

CONJ625	Fundamentals of Epidemiology and Biostatistics: Interpreting the Medical Literature	Spring 2014, 2015
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ID717	Special Topics: Introduction to Clinical Trials	Fall 2014, 2015
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ID740B	Statistical Methods in Research	Fall 2015 Spring 2016
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University of Alabama at Birmingham (TA)

QM214	Quantitative Analysis I	Fall 2013
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EC420	Applied Forecasting	Fall 2013
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Software Proficiencies

Statistics

Typesetting

Publications

38. Frascogna MN, Merkle E, Dowdy K, **Seals S**. "The Effect of Pediatric Early Warning System Scoring Upon Admission from the Pediatric Emergency Department on Emergency Response Calls," *Pediatric Emergency Care*, accepted.
37. Ramsey LH, Graves PE, Sharp KMH, **Seals SR**, Collier AB, Karlson CW. "Impact of Race, Socioeconomic Status, and Access to Care on Medical and Psychological Outcomes in Pediatric Oncology," *Journal of Pediatric Hematology and Oncology*, accepted.
36. Okhomina VI*, **Seals SR***, Marshall GD. "Recruitment and Enrollment of African Americans from the Jackson Heart Study into Health Promoting Programs," *Ethnicity and Health*, accepted. * indicates co-first authors
35. Okhomina VI*, **Seals SR***, Anugu P, Adu-Boateng G, Sims M, Marshall GD. "Adherence and Retention of African Americans in a Randomized Controlled Trial with a Yoga-Based Intervention: The Effects of Health Promoting Programs on Cardiovascular Disease Risk Study," *Ethnicity and Health*, accepted. * indicates co-first authors
34. Hyacinth HI, Carty CL, **Seals SR**, Irvin MR, Naik RP, Burke GL, Zakai NA, Winkler CA, David VA, Kopp J, Judd SE, Adams RJ, Epstein MP, Longstreth Jr WT, Egede L, Lackland DT, Greenberg CS, Taylor H, Manson JE, Howard V, Allison M, Gee BE, Correa A, Safford MM, Arnett DK, Howard G, Wilson JG, Cushman M, Reiner AP. "Association of Sickle Cell Trait With Ischemic Stroke Among African Americans: A Meta-Analysis," *JAMA: Neurology*, 2018, 75(7): 802-807.
33. Sorrel J, Bishop CE, Spankovich C, Su D, Valle K, **Seals S**, Schweinfurth J. "Relationship of Stroke Risk and Hearing Loss in African Americans: The Jackson Heart Study," *Laryngoscope*, 2018, 128(6): 1438-1444.
32. Ordemann AG, Hartzog AJ, **Seals SR**, Spankovich C, Stringer SP. "Is Weight a Predictive Risk Factor of Post-Operative Tonsillectomy Bleed?" *Laryngoscope Investigative Otolaryngology*, 2018, 3(3): 238-243.
31. Bromfield SG, Booth III JN, Loop M, Schwartz JE, **Seals SR**, Thomas SJ, Min YI, Ogedegbe G, Shimbo D, Muntner P. "Evaluating Different Criteria for Defining a

Complete Ambulatory Blood Pressure Monitoring Recording: Data from the Jackson Heart Study,” *Blood Pressure Monitoring*, 2018, 23(2): 103-111.

30. Ilunga Tshiswaka D, **Seals SR**, Raghavan P. “Correlates of Physical Function among Stroke Survivors: An Examination of the 2015 BRFSS,” *Public Health*, 2018, 155: 17-22.

29. Patterson GD, Mashegu H, Rutherford J, **Seals S**, Josey D, Karlson C, McNaull M, May W, Carroll C, Barr FE, Majumdar S. “Recurrent Acute Chest Syndrome in Pediatric Sickle Cell Disease: Clinical Features and Risk Factors,” *Journal of Pediatric Hematology/Oncology*, 2018, 40(1): 51-55.

28. Herman R, Muncie C, **Seals SR**, Sawaya D, Berch B, Blewett C. “Analysis of the Financial Benefit of Same Day Appendectomy,” *The American Surgeon*, 2017, 83(9): E351-E353.

27. Desai J, Aggarwal S, Lipshultz S, Ggarwal P, Yigazu P, Patel R, **Seals S**, Natarajan G. “Surgical Interventions in Infants Born Preterm with Congenital Heart Defects: An Analysis of the Kids' Inpatient Database,” *The Journal of Pediatrics*, 2017, 191: 103-109.

26. Helling T, Soltys D, **Seals S**. “Operative versus Non-operative Management in the Care of Patients with Complicated Appendicitis,” *The American Journal of Surgery*, 2017, 214(6): 1195-1200.

25. Tanner RM, Shimbo D, Irvin MR, Spruill T, Bromfield S, **Seals SR**, Young BA, Muntner P. “Chronic Kidney Disease and Incident Apparent Treatment-resistant Hypertension among African Americans: Data from the Jackson Heart Study,” *The Journal of Clinical Hypertension*, 2017, 19(11): 1117-1124.

24. Tajeu GS, Booth III JN, Gottesman R, Howard G, Lackland DT, O'Brien E, Oparil S, Ravenell J, Safford MM, **Seals SR**, Shimbo D, Shea S, Spruill T, Tanner RM, Muntner P. “Incident Cardiovascular Disease among Adults with Blood Pressure $\leq$ 140/90 mmHg,” *Circulation*, 2017, 136(10): 798-812.

23. Aru RG, Songcharoen SJ, **Seals SR**, Arnold PB, Hester RL. “Microcirculatory Effects of Botulinum Toxin A in the Rat: Acute and Chronic Vasodilation,” *Annals of Plastic Surgery*, 2017, 79(1): 82-85.

22. House L, **Seals SR**, Stringer SP. “Correlation of Frontal Sinus Recess Anatomy with Ethnicity, Gender, and Pathology,” *American Journal of Otolaryngology--Head and Neck Medicine and Surgery*, 2017, 38(4): 452-455.

21. Whitlock R, **Seals SR**, Seawright A, Wynn JJ, Anderson CD, Earl TM. “Socioeconomic Factors Associated with Readmission after Deceased Donor Renal Transplantation,” *The American Surgeon*, 2017, 83(7): 755-760.

20. Thomas SJ, Booth III JN, Bromfield SG, **Seals SR**, Spruill TM, Ogedebge G, Kidambi S, Shimbo D, Calhoun D, Muntner P. "Clinic and Ambulatory Blood Pressure in a Population-Based Sample of African Americans: The Jackson Heart Study," *Journal of the American Society of Hypertension*, 2017, 11(4): 204-212.
19. Sterling SA, **Seals SR**, Jones AE, King MH, Galli RL, Isom KC, Summers RL, Henderson KA. "The Impact of the TelEmergency Program on Rural Emergency Care: An Implementation Study," *Journal of Telemedicine and Telecare*, 2017, 23(6): 588-594.
18. Witherow MP, Chandraiah S, **Seals SR**, Sarver DE, Parisi KE, Bugan A. "Relational Intimacy Mediates Sexual Outcomes Associated with Female Sexual Dysfunction: Examination in a Clinical Sample," *Journal of Sexual Medicine*, 2017, 14(6): 843-851.
17. Lirette ST, **Seals SR**, Blackshear C, May W. "Capturing a Stata Dataset and Releasing it into REDCap," *The Stata Journal*, 2017, 17(1): 130-138.
16. Diaz KM, Booth III JN, **Seals SR**, Abdalla M, Dubbert PM, Sims M, Ladapo J, Redmond N, Muntner P, Shimbo D. "Physical Activity and Incident Hypertension in African Americans: The Jackson Heart Study," *Hypertension*, 2017, 69(3): 421-427.
15. Bress AP, Colantonio LD, Booth JN, Spruill T, Ravenell J, Butler M, Shallcross A, **Seals SR**, Ogedegbe O, Shimbo D, Muntner P. "Modifiable Risk Factors versus Age on Developing High Predicted Cardiovascular Disease Risk in African Americans," *Journal of the American Heart Association*, 2017, 6(2): 1-9.
14. Bello NA, Hyacinth HI, Roetker NS, **Seals SR**, Naik RP, Derebail VK, Kshiragar AV, Key NS, Wilson JG, Robert AJ, Egede LD, Longstreth W, Choudhary G, Gee BE, Hughes AL, Shah AM, Manson JE, Allison M, Burke GL, Folsom AR, Carty CL, Reiner AP, Solomon SD, Konety SH. "Sickle Cell Trait is Not Associated with an Increased Risk of Heart Failure or Abnormalities of Cardiac Structure and Function," *Blood*, 2017, 129(6): 799-801.
13. **Seals SR**, Aban IB. "Analysis of the 17-Segment Left Ventricle Model using Generalized Estimating Equations," *Journal of Nuclear Cardiology*, 2016, 23(5): 1110-1111.
12. **Seals SR**, Katholi CR, Zhang J, Aban IB. "Evaluating the Use of Spatial Covariance Structures in the Analysis of Cardiovascular Imaging Data," *Communications in Statistics-Simulation and Computation*, 2016, 45(9): 3149-3170.
11. Booth III JN, Diaz KM, **Seals SR**, Sims M, Ravenell J, Muntner P, Shimbo D. "Masked Hypertension and Cardiovascular Disease Events in a Prospective Cohort of Blacks: The Jackson Heart Study," *Hypertension*, 2016, 68(2): 501-510.
10. Abdalla M, Booth III JN, **Seals SR**, Viera AJ, Diaz KM, Sims M, Muntner P, Shimbo D. "Masked Hypertension and Incident Clinic Hypertension among African Americans in the Jackson Heart Study," *Hypertension*, 2016, 68(1): 220-226.

9. Scott JS, Sterling SA, To H, **Seals SR**, Jones AE. "Diagnostic Performance of Matrix-Assisted Laser Desorption Ionization Time-of-Flight Mass Spectrometry in Blood Bacterial Infections: A Systematic Review and Meta-analysis," *Infectious Diseases*, 2016, 48(7): 530-536.
8. Witherow MP, Chandriah S, **Seals SR**, Bugan A. "Relational Intimacy and Sexual Frequency: A Correlation or a Cause? A Clinical Study of Heterosexual Married Women," *Journal of Sex and Marital Therapy*, 2016, 42(3): 227-286.
7. Dodge-Khatami J, Dodge-Khatami A, Knudson J, **Seals SR**, Aggarwal A, Taylor MB, Salazar JD. "Alternative Strategies in Newborns and Infants with Major Comorbidities to Improve Congenital Heart Surgery Outcomes at an Emerging Programme," *Cardiology in the Young*, 2016, 26(3): 485-492.
6. Diaz KM, Booth JN, **Seals SR**, Hooker SP, Sims M, Dubbert PM, Muntner P, Shimbo D. "Sedentary Behavior and Subclinical Atherosclerosis in African Americans: Cross-Sectional Analysis of the Jackson Heart Study," *International Journal of Behavioral Nutrition and Physical Activity*, 2016, 13(31): 1-9.
5. Tanner RM, Shimbo D, **Seals SR**, Ogedegbe G, Muntner P. "White-Coat Effect Among Older Adults: Data From the Jackson Heart Study," *Journal of Clinical Hypertension*, 2016, 18(2): 139-145.
4. Dodge-Khatami A, Chancellor WZ, Gupta B, **Seals SR**, Ebeid MR, Batlivala SP, Taylor MB, Salazar JD. "Achieving Benchmark Results for Neonatal Palliation of Hypoplastic Left Heart Syndrome and Related Anomalies in an Emerging Program," *World Journal for Pediatric and Congenital Heart Surgery*, 2015, 6(3): 393-400.
3. George B, **Seals S**, Aban I. "Survival Analysis and Regression Models," *Journal of Nuclear Cardiology*, 2014, 21(4): 686-694.
2. Wetta LA, Szychowski JM, **Seals S**, Mancuso M, Hauth J, Tita AT. "Risk Factors for Uterine Atony or Postpartum Hemorrhage Requiring Treatment after Vaginal Delivery," *American Journal of Obstetrics and Gynecology*, 2013, 209(1): 51.e1-51.e6.
1. Albright KC, Boehme AK, Hicks W, **Seals S**, Bursaw W, Mullen MT, Grotta JC, Savitz SI. "Changing Demographics at a Comprehensive Stroke Center amidst the Rise in Primary Stroke Centers," *Stroke*, 2013, 44(4): 1117-1123.

Submitted Manuscripts

Seals SR, Colantonio LD, Tingle JV, Shimbo D, Correa A, Griswold ME, Muntner P. "Calibration of Blood Pressure Measurements in the Jackson Heart Study," submitted to *Blood Pressure Monitoring*.

Parisi KE, **Seals SR**, De Nadai A, Sarver NW. "Readiness for Change Predicts Attrition, Recidivism among Maltreating Parents: Standard Care versus Parent-Child Interaction Therapy," submitted to *Journal of Child and Family Studies*.

Bishop CE, Spankovich C, Lin FR, **Seals SR**, Su D, Valle K, Schweinfurth JM. "Audiologic Profile of the Jackson Heart Study Cohort and Comparison to Other Cohorts," submitted to *JAMA Otolaryngology-Head & Neck Surgery*.

Perkins RD, **Seals SR**. "Entrepreneurial Branding Strategy, Brand Elements and Growth," submitted to *Journal of Research in Marketing and Entrepreneurship*.

Smith TB*, Clark LK, **Seals SR**. "Defining Success in Public Archaeology Evaluation," submitted to *Public Archaeology*. * indicates student lead author

Yano Y, Tanner RM, Jaeger B, Booth III JN, Abdalla M, Pugliese D, **Seals SR**, Ogedegbe G, Jones DW, Muntner P, Shimbo D. "The Association Between Nighttime Blood Pressure and Cardiovascular Disease Events among African Americans in the Jackson Heart Study," submitted to *JAMA Cardiology*.

Manuscripts in Preparation

Seals SR, Lee JE*, Katholi CR, Aban IB. "A Family of Covariance Structures for Clustered Data with Applications to Clinical Data," in preparation. * indicates student co-authors

Ah Mu T*, Wisdom MA*, **Seals SR**, Ilunga Tshiswaka D. "Factors Affecting Fertility Rates of Rwandan Women," in preparation. * indicates student lead and co-authors

Sterling SA, Frischhertz V, Lewis T, Shollar RM*, **Seals SR**, Moriarity RS, Summers RL, Thompson J. "The Effect of Obesity on Blunt Traumatic Cervical Spine Injuries," in preparation. * indicates student co-author

Khakzad S, Thomin M, Burchette S*, **Seals SR**. "Heritage Tourism in Florida: A Choice Between the Beach and Cultural Heritage," in preparation. * indicates student co-author

Moore AL*, Hyacinth HI, **Seals SR**. "Knowledge of Stroke and Heart Attack Symptoms and Intent to Call 911: A Study of African American REACH and BRFSS Participants," in preparation. * indicates student lead author

Davis BS*, Moore AL*, Hyacinth HI, **Seals SR**. "Association of Obesity with Health Behaviors among African Americans in the 'Buckle' of the Stroke Belt," in preparation. * indicates student lead and co-authors

Perkins RD, **Seals SR**. “Exploring Entrepreneurial Vision and Growth: A Multi-Case Study,” in preparation.

Porter IM*, Stoker G*, **Seals SR**, Drollinger S, Schutte H, Rice G. “Human Papilloma Virus Vaccination Compliance in a Military Aviation Training Community,” in preparation.

* indicates student lead and co-authors

Presentations: Statistical

17. Smith TB*, Hernandez K, Clark LK, **Seals SR**. “Defining Success in Public Archaeology Evaluation,” Conference on Historical and Underwater Archaeology, January 2018. * indicates student lead author

16. **Seals SR**. “Methods for the Calibration of Longitudinal Data: An Example from the Jackson Heart Study,” University of West Florida, Department of Mathematics and Statistics Colloquium Series, October 2017.

15. **Seals SR**. “Statistics in Research,” Guest Lecture for GEO6118: Research Design in the Department of Earth and Environmental Science, University of West Florida, March 2017.

14. **Seals SR**. “An Introduction to Biostatistics and Research,” University of Mississippi Medical Center, Department of Otolaryngology Research Meeting, March 2016.

13. **Seals SR**. “An Introduction to Statistics in the Medical Literature,” University of Mississippi Medical Center, Department of Dermatology Grand Rounds, November 2015.

12. **Seals SR**. “Controlling Type I Error Rate in Clinical Trials,” University of Mississippi Medical Center, Center of Biostatistics and Bioinformatics Team Working Group Meeting, September 2015.

11. **Seals SR**, Katholi CR, Aban IB. “Modeling Imaging Data Using a Generalized Linear Model with a New Family of Covariance Structures for Clustered Data,” the 17th Meeting of New Researchers in Statistics and Probability, August 2015.

10. **Seals SR**. “Statistical Analysis of the 17--Segment Left Ventricle Model using Generalized Linear Models,” University of Mississippi/University of Mississippi Medical Center Research Day, April 2015.

9. **Seals SR**. “The p -value: Friend or Foe?” University of Mississippi Medical Center, Center of Biostatistics and Bioinformatics Grand Rounds, March 2015.

8. **Seals SR**. “Evidence-Based Dermatology: An Overview of Statistical Inference,” University of Mississippi Medical Center, Department of Dermatology Grand Rounds, November 2014.

7. **Seals SR**, Katholi CR, Aban IB. "A Proposed Family of Covariance Structures for Clustered Data," Joint Statistical Meetings, Boston, MA, August 2014.
6. **Seals SR**. "Analysis of Subjects with Multiple Observations," University of Mississippi Medical Center, Center of Biostatistics and Bioinformatics Grand Rounds, July 2013.
5. **Seals SR**. "Spatial Analysis of Cardiovascular MRI Data," University of Mississippi Medical Center, Center of Biostatistics and Bioinformatics Grand Rounds, July 2013.
4. **Seals SR**. "Modeling the Covariance of Grouped Spatial Data," University of Alabama at Birmingham Section on Statistical Genetics Annual Retreat, April 2013.
3. **Seals SR**, Katholi CR, Zhang J, Aban IB. "Evaluating the Use of Spatial Covariance Structures in the Analysis of Cardiovascular Imaging Data," University of Alabama at Birmingham Graduate School Research Days, February 2013. *Awarded 1st place, Mathematics and Computer & Information Sciences.*
2. **Seals SR**, Katholi CR, Zhang J, Aban IB. "Evaluating the Use of Spatial Covariance Structures in the Analysis of Cardiovascular Imaging Data," Annual Meeting of the Florida Chapter of the American Statistical Association, Pensacola, FL, February 2013.
1. **Seals SR**, Katholi CR, Aban IB. "Spatial Analysis of Cardiovascular Data: A Simulation Study," Joint Statistical Meetings, San Diego, CA, July 2012.

Presentations: Collaborative

26. Khakzad S, Thomin M, **Seals S**, Burchette S*. "Heritage Tourism in Florida: A Choice Between the Beach and Cultural Heritage," Conference on Historical and Underwater Archaeology, January 2018. * indicates student co-author
25. Sterling SA, Frischhertz V, Lewis T, Shollar RM*, **Seals SR**, Moriarity RS, Summers RL, Thompson J. "The Effect of Obesity on Blunt Traumatic Cervical Spine Injuries," the Society for Academic Emergency Medicine, May 2017. * indicates student co-author
24. Hyacinth HI, Carty C, **Seals SR**, Irvin MR, Naik RP, Caughey M, Franchescini N, Burke GL, Zakai NA, Winkler C, Kopp J, Judd SE, Adams RJ, Gee BE, Longstreth Jr. WT, Egede L, Lackland DT, Greenberg CS, Taylor H, Manson JE, Key NS, Derebail VK, Kshirsagar AV, Folsom A, Konety SH, Howard V, Allison M, Wilson JG, Zhi D, Arnett DK, Howard G, Cushman M, Reiner AP, Safford MM. "Sickle Cell Trait is a Risk Factor for Coronary Heart Disease in African Americans," the American Society for Hematology, December 2016.
23. Aru RG*, Songcharoen SJ, **Seals SR**, Arnold PB, Hester RL. "Microcirculatory Effects on Botulinum Toxin A in the Rat: Acute and Chronic Vasodilation," University of Mississippi Medical Center's James D. Hardy Lectureship Series, June 2016. * indicates student lead author

22. Aru M*, **Seals S**, Ingram B, Seawright A, Anderson C, Earl T. "African Americans Have Greater Odds of Late Stage Diagnosis of Hepatocellular Carcinoma in Mississippi," University of Mississippi Medical Center's James D. Hardy Lectureship Series, June 2016. * indicates student lead author
21. Mahoney M, Horn K, Saunders R, **Seals S**, Martin L, Risher RE, Robertson TE. "Implementation of Glass Door Communication Board Did Not Improve Surveyed Opinions of Communications," University of Mississippi Medical Center's James D. Hardy Lectureship Series, June 2016.
20. Ordemann AG, Crews W, Sathyamoorthy M, **Seals S**, Carron J. "Effect of Intravenous Acetaminophen (Ofirmev) on Perioperative Morphine Use and Discharge Readiness in Pediatric Tonsillectomy," Combined Otolaryngology Spring Meetings, May 2016.
19. Patterson GD, Mashegu H, Rutherford J, **Seals SR**, Josey D, Rhodes M, Karlson C, Barr F, Majumdar S. "Risk Factors for Recurrent Acute Chest Syndrome in Pediatric Sickle Cell Disease: A Single Institution's Experience," National Sickle Cell Disease Scientific Meeting, April 2016.
18. Mahoney M, Horn K, Saunders R, **Seals S**, Martin L, Risher RE, Robertson TE. "Implementation of Glass Door Communication Board Did Not Improve Surveyed Opinions of Communications," 45th Critical Care Congress, February 2016.
17. Songcharoen SJ, Daggett A*, **Seals SR**, Taeprasartsit P, Kiranantawat K, Arnold PB. "Extended Testing of the First Smartphone Application for Microsurgery Monitoring," Plastic Surgery: The Meeting, October 2015. * indicates student co-author
16. Pavlov A*, Songcharoen SJ, **Seals SR**, Arnold PB. "Relationship of Reduction Weight and Body Surface Area as Predictors of Complications after Breast Reduction Surgery," the Southeastern Society of Plastic and Reconstructive Surgeons' scientific meeting, June 2015. * indicates student lead author
15. Ingram BD, **Seals SR**, Martin MD, Anderson CD, Earl TM. "Race Predicts Late Stage Diagnosis of HCC in Mississippi," University of Mississippi Medical Center's James D. Hardy Surgical Forum, May 2015.
14. Moore EK, **Seals SR**, Jones AE, Robertson TE. "Factors Affecting Time of Consultation to Time of Admission for Surgical Consultations in the Emergency Department," University of Mississippi Medical Center's James D. Hardy Surgical Forum, May 2015.
13. Sparkman BK, Hughes T, Blaudeau E, **Seals S**, Martin LC. "Outcomes of Patients with Suspected Hollow Viscous Injury from Computed Tomography Scans Suffering from Blunt Abdominal Trauma," University of Mississippi Medical Center's James D. Hardy Surgical Forum, May 2015.

12. Demerath EW, **Seals SR**, Griswold ME, Pettee Gabriel K, Pompeii L, Windham BG. "Association of Early Age at Natural Menopause with Objectively-Measured Physical Function in 4,723 Older Women in the Atherosclerosis Risk in Communities (ARIC) Study," American Geriatrics Association Annual Meeting, May 2015.
11. Songcharoen SJ, Aru RG*, **Seals SR**, Arnold PB, Hester RL. "Microcirculatory Effects of Botulinum Toxin A in the Rat: Acute and Chronic Vasodilation," American Association of Plastic Surgeons Annual Meeting, April 2015. * indicates student co-author
10. Songcharoen SJ, Aru RG*, **Seals SR**, Arnold PB, Hester RL. "Microcirculatory Effects of Botulinum Toxin A in the Rat: Acute and Chronic Vasodilation," 2015 Meeting of the James D. Hardy Society, April 2015. * indicates student co-author
9. Pavlov AK*, Songcharoen SJ, **Seals SR**, Arnold PB. "Relationship of Reduction Weight and Body Surface Area as Predictors of Complications after Breast Reduction Surgery," University of Mississippi Medical Center Research Day Oral Presentation Competition, March 2015. * indicates student lead author
8. Frascogna MN, Merkle E, Dowdy K, **Seals S**. "The Effect of Pediatric Early Warning System Scoring Upon Admission from the Pediatric Emergency Department on Emergency Response Calls," Southern Society for Pediatric Research, February 2015.
7. Gupta B, Dodge-Khatami A, **Seals SR**, Tucker J, Taylor MB, Maposa D, Salazar JD. "Complex Aortic Arch Reconstruction using Moderate Hypothermia and Antegrade Cerebral Perfusion in Newborns and Children," The Society of Thoracic Surgeons Annual Meeting, January 2015.
6. Clark JM, **Seals SR**, Songcharoen J, Arnold P. "The Effects of Insurance and Access to Healthcare on Outcomes in Zone 2 Injuries," American Association for Hand Surgery Annual Meeting, January 2015.
5. Whitlock R*, Stanford E*, Smith D, **Seals S**, Subramony C, Abell T, Lahr C. "Temp-Perm vs. Perm-Only Gastric Electrical Stimulation for Gastroparesis," North American Neuromodulation Society's Annual Meeting, December 2014. * indicates student lead and co-authors
4. Whitlock R*, Abell T, Sanford E*, **Seals S**, Smith D, Subramony C, Lahr C. "Electrogastrogram Predicts Response to Neuromodulation," Canadian Neuromodulation Society's Annual Meeting, December 2014. * indicates student lead and co-authors
3. Whitlock R*, Sanford E*, **Seals S**, Smith D, Subramony C, Abell T, Lahr C. "Predictors of Pain Improvement in Gastric Neuromodulation," Napa Pain Conference, September 2014. * indicates student lead and co-authors

2. Gambrell K, Helling T, **Seals S**, "Initial Emergency Department Presentations of Colorectal Cancer at University of Mississippi Medical Center," University of Mississippi Medical Center's James D. Hardy Surgical Forum, June 2014.

1. Albright KC, Boehme AK, Hicks W, **Seals S**, Bursaw W, Mullen MT, Grotta JC, Savitz SI. "Impact of Primary Comprehensive Stroke Centers," International Stroke Conference, New Orleans, LA, January 2012.

Presentations: Posters

38. Moore TJ*, Moore AL*, **Seals SR**. "Preventive Service Use by Sexual Orientation: Results from the 2016 Behavioral Risk Factor Surveillance System," the American Public Health Association Annual Meeting, November 2018. * indicates student lead and co-authors

37. Stoker G*, Porter IM*, **Seals S**, Drollinger S, Schutte H, Rice G. "Human Papilloma Virus Vaccination Compliance in a Military Aviation Training Community (Part II): Self-Reported Barriers," the Aerospace Medical Association's Scientific Meeting, May 2018. * indicates student lead and co-authors

36. Porter IM*, Stoker G*, **Seals S**, Drollinger S, Schutte H, Rice G. "Human Papilloma Virus Vaccination Compliance in a Military Aviation Training Community (Part I)," the Aerospace Medical Association's Scientific Meeting, May 2018. * indicates student lead and co-authors

35. Davis BS*, Moore AL*, Hyacinth HI, **Seals SR**. "Association of Obesity with Health Behaviors among African Americans in the 'Buckle' of the Stroke Belt," UWF's Student Symposium, April 2018. * indicates student lead and co-authors

34. Adolphe R*, Baldwin K*, Nguyen A*, Zatopkova K*, Han G, **Seals S**. "The Effect of Off-Topic Activities in Class on Sleepiness Level and Learning Performance During Lectures," UWF's Student Symposium, April 2018. * indicates student lead and co-authors

33. Coalson A*, **Seals SR**. "A Retrospective Investigation into Live Discharges at a Hospice Organization," UWF's Student Symposium, April 2018. * indicates student lead and co-authors

32. Davis BS*, Moore AL*, Hyacinth HI, **Seals SR**. "Association of Obesity with Health Behaviors among African Americans in the 'Buckle' of the Stroke Belt," the National Conference on Undergraduate Research, April 2018. * indicates student lead and co-authors

31. Adolphe R*, Baldwin K*, Nguyen A*, Zatopkova K*, Han G, **Seals S**. "The Effect of Off-Topic Activities in Class on Sleepiness Level and Learning Performance During

Lectures,” the National Conference on Undergraduate Research, April 2018. * indicates student lead and co-authors

30. Porter IM*, Stoker G*, **Seals SR**, Drollinger S, Schutte H, Rice G. “Human Papilloma Virus Vaccination Compliance in a Military Aviation Training Community,” submitted to the Navy and Marine Corps Public Health Center's Public Health Conference, March 2018. *Awarded 1st place in the trainee category.* * indicates student lead and co-authors

29. Moore TJ*, Moore AL*, Okafor A, Memiah P, **Seals SR**. “Adult Asthma: Disparities and Association between Comorbidities and Accessing Emergency Care,” American Public Health Association Annual Meeting, November 2017. * indicates student lead and co-authors

28. Moore TJ*, Moore AL*, Okafor A, Memiah P, **Seals SR**. “Adult Asthma: Disparities and Association between Comorbidities and Accessing Emergency Care,” the University of West Florida's Symposium on Health Professions, October 2017. * indicates student lead and co-authors

27. Sorrel J, **Seals SR**, Bishop CE, Spankovich C, Schweinfurth J. “Relationship of Stroke Risk and Hearing Loss in African Americans,” Combined Otolaryngology Spring Meeting, April 2017.

26. Herman R, Muncie C, **Seals SR**, Blewett C. “Analysis of the Financial Benefit of Same Day Appendectomy,” Annual Scientific Meeting of the Southeastern Surgical Congress, February 2017.

25. Moore LE, Marshall GD, **Seals SR**, Rodriguez RJ, Yates AB, Dave N. “Assessment of Pediatric Asthma Care by Primary Care Providers in Mississippi Using an Online Questionnaire,” Annual Scientific Meeting of the American College of Allergy, Asthma, and Immunology, November 2016.

24. Thomas SJ, Booth III JN, Bromfield S, **Seals SR**, Spruill T, Ogedebge G, Kidambi S, Shimbo D, Calhoun D, Muntner P. “Prevalence of Ambulatory Blood Pressure Monitoring Phenotypes in a Population-Based Sample of African Americans: The Jackson Heart Study,” Annual Meeting of the Sleep Research Network, October 2016.

23. Karlson C, Graves PE, Sharp KMH, **Seals SR**, Collier A. “Racial and Socioeconomic Impact on Pediatric Oncology Outcomes in Mississippi,” 48th Congress of the International Society of Paediatric Oncology, October 2016.

22. Tajeu GS, Booth JN, Gottesman RF, Howard G, Lackland DT, Oparil S, Ravenell J, Safford MM, **Seals SR**, Shimbo D, Shea S, Spruill T, Tanner RM, Muntner P. “Incident Cardiovascular Disease among Adults with Blood Pressure < 140/90 mm Hg,” the University of Alabama at Birmingham's 27th Annual Vascular Biology & Hypertension Symposium, September 2016.

21. Thomas SJ, Booth III JN, Bromfield S, **Seals SR**, Spruill T, Ogedebge G, Kidambi S, Shimbo D, Calhoun D, Muntner P. "Prevalence of Ambulatory Blood Pressure Monitoring Phenotypes in a Population-Based Sample of African Americans: The Jackson Heart Study," Council on Hypertension Meeting, September 2016.
20. Thomas SJ, Booth III JN, Bromfield S, **Seals SR**, Spruill T, Ogedebge G, Kidambi S, Shimbo D, Calhoun D, Muntner P. "Prevalence of Ambulatory Blood Pressure Monitoring Phenotypes in a Population-Based Sample of African Americans: The Jackson Heart Study," American Heart Association's Strategically Focused Research Network Meeting, September 2016.
19. Aru M*, **Seals S**, Ingram B, Seawright A, Anderson C, Earl T. "African Americans Have Greater Odds of Late Stage Diagnosis of Hepatocellular Carcinoma in Mississippi," American Transplant Congress, June 2016. * indicates student lead authors
18. Hardy ET, Schober LL, Richardson MA, Replogle WH, **Seals SR**, Jordan JR. "Transconjunctival Approach to the Orbit: A Modified Technique," Combined Otolaryngology Spring Meeting, May 2016.
17. Ordemann AG, Hartzog AJ, **Seals S**, Spankovich C, Stringer SP. "Is Weight a Predictive Risk Factor of Post-Operative Tonsillectomy Bleed?" Combined Otolaryngology Spring Meetings, May 2016.
16. Aru M*, **Seals S**, Ingram B, Seawright A, Anderson C, Earl T. "African Americans Have Greater Odds of Late Stage Diagnosis of Hepatocellular Carcinoma in Mississippi," University of Mississippi Medical Center Department of Medicine Research Day, April 2016. * indicates student lead author
15. Fischer KE, **Seals SR**, Sarver NW. "Parents' Readiness to Change Predicts Child Anxiety and Depression Outcomes among Physically Abusive Parents," Anxiety and Depression Conference, April 2016.
14. Booth III JN, Diaz K, **Seals S**, Sims M, Ravenell J, Muntner P, Shimbo D. "Masked Hypertension is Associated with Cardiovascular Disease Events in African Americans: The Jackson Heart Study," the American Heart Association's Epidemiology and Prevention: Lifestyle and Cardiometabolic Health Scientific Sessions, March 2016.
13. Songcharoen SJ, Clark JM, Aru R*, Williamson R, Roach M, **Seals SR**, Arnold P, Songcharoen S. "Biochemical Effects of Sagittal Band Continuity on Extension at the Metacarpophalangeal Joint," American Association for Hand Surgery's Annual Meeting, January 2016. * indicates student co-author
12. Booth III JN, Abdalla M, Diaz K, **Seals S**, Sims M, Ravenell J, Muntner P, Shimbo D. "Masked Hypertension and Cardiovascular Disease Events and Mortality in African Americans: The Jackson Heart Study," the University of Alabama at Birmingham's 26th Annual Vascular Biology & Hypertension Symposium, September 2015.

11. **Seals SR**, Katholi CR, Aban IB. "Modeling Imaging Data Using a Generalized Linear Model with a New Family of Covariance Structures for Clustered Data," the 17th Meeting of New Researchers in Statistics and Probability, August 2015.
10. Wilkening S*, Windham BG, **Seals S**, Coker L, Knopman D, Gottesman R, Griswold M, Mosley T. "MRI Predictors of Cognitive Decline over 20 Years," The American College of Physicians Internal Medicine Meeting, May 2015. * indicates student lead author
9. Wilkening S*, Windham BG, **Seals S**, Coker L, Knopman D, Gottesman R, Griswold M, Mosley T. "MRI Predictors of Cognitive Decline over 20 Years," The American Geriatrics Society's Annual Meeting, May 2015. * indicates student author
8. Tanner RM, Shimbo D, **Seals S**, Ogedegbe G, Muntner P. "Clinic versus Out-of-Clinic Daytime Blood Pressure Among Older Adults: Data from the Jackson Heart Study," The American Heart Association's Epidemiology and Prevention: Lifestyle and Cardiometabolic Health Scientific Sessions, March 2015.
7. Diaz KM, Booth III JN, **Seals SR**, Hooker SP, Dubbert PM, Muntner P, Shimbo D. "Sedentary Behavior and Subclinical Atherosclerosis in African Americans: The Jackson Heart Study," The American Heart Association's Epidemiology and Prevention: Lifestyle and Cardiometabolic Health Scientific Sessions, March 2015.
6. Dodge-Khatami A, Chancellor WZ*, Gupta B, **Seals SR**, Batlivala SP, Taylor MB, Salazar JD. "Adapting Surgical Strategies to Boost Survival for Hypoplastic Left Heart Syndrome in an Upstart Program," The Pediatric Cardiac Intensive Care Society Conference, December 2014. * indicates student co-authors
5. Dodge-Khatami J, Dodge-Khatami A, Gupta B, **Seals SR**, Aggarwal A, Taylor M, Salazar JD. "Endemically Complex Congenital Heart Disease with Major Comorbidities at an Upstart Program: Advanced Surgical Strategies in Newborns and Infants to Improve Outcomes," The Pediatric Cardiac Intensive Care Society Conference, December 2014.
4. **Seals SR**, Denney TS, Dell'Italia L, Gupta H, Aban IB. "Effect of Diabetes on the Wringing Motion of the Left Ventricle Post-MI," The University of Alabama at Birmingham's Public Health Research Day, April 2012.
3. **Seals SR**, Ahmed M, Denney TS, Gupta H, Lloyd S, Dell'Italia L, Aban IB. "Modeling the Number of Diseased Myocardial Segments in MI Patients," The University of Alabama at Birmingham's Public Health Research Day, April 2011.
2. Abramovici A, Szychowski JM, Rouse DJ, **Seals S**, Andrews W, Hauth JC, Tita AT. "Oxytocin Dose--Regimens to Prevent Uterine Atony after Vaginal Delivery: Does Treatment Efficacy Vary by Risk Status?" The Society for Maternal--Fetal Medicine Annual Meeting, February 2011.

1. Wetta L, Szychowski JM, **Seals S**, Mancuso M, Hauth J, Tita AT. "Risk Factors for Uterine Atony at Vaginal Delivery: A Comprehensive Evaluation," The Society for Maternal--Fetal Medicine Annual Meeting, February 2011.

Mentoring

Office of Undergraduate Research Works!

Brooke Davis, 2017-2018.

Undergraduate Proseminar

Jamal Bias, Fall 2018. *The NBA: Old School vs. New School. An Analysis on Player Scoring Production in the NBA Over the Years.*

Christlene Amitie, Fall 2018. *Predicting Hypertension and Diabetes in Southern African Americans: Data from the Jackson Heart Study.*

Daniel Moulder, Fall 2018. *Estimating Sea Oat Coverage at Pensacola Beach: An Application of Adaptive Cluster Sampling.*

Graduate Proseminar

Margret (Peggy) Wisdom, Fall 2018. *Student-Based Outcomes in University Physics I: What are Predictors of Student Success?*

Jeff Swords, Fall 2018. *Modeling Violent Crime Data for the Southeastern United States: A Regression Approach with Statistical Surveillance Analysis.*

Matthew Swithers, Summer 2018. *Gun Control and Violent Crime: An Association Study.*

Collin Layana, Summer 2018. *Determining the Greatest NBA Franchise of All Time: An Analysis of the Los Angeles Lakers.*

Denise Edwards, Spring 2018. *Validating Modeling and Simulation Data for the Joint Air-To-Surface Super Duper Awesome Munition.*

Brice (Lee) Winfree, Spring 2018. *Effects of Health Promoting Programs on Cardiovascular Disease Risk Factors in the African American Population.*

Audrey Moore, Fall 2017. *Predictors of Knowledge of Stroke and Heart Attack Symptoms and Intent to Call 911 among Black/African Americans.*

Brandon Smith, Fall 2017. *Large Enough? Determining the Necessary Sample Size to Apply the Central Limit Theorem.*

Thesis Committee Member

Haley McQueen, Earth and Environmental Science, Fall 2018-Present.

Mark Prousalis, Earth and Environmental Science, Fall 2018-Present.

Marley Allen, Earth and Environmental Science, Spring 2018-Present.

Paige Plier, Earth and Environmental Science, Summer 2017. *Biological Indicators of the Spatial Variability of Submarine Groundwater Discharge in a Subtropical Estuary.*

Dissertation Committee Member

Svetlana Mett, Physical Education and Health, Fall 2018-Present.

Short Courses and Continuing Education

R Programming. Taught by Johns Hopkins University via Coursera, March 2016.

Adaptive Methods for Modern Clinical Trials. Taught by Byron Jones, Frank Bretz, and Guosheng Yin at ASA's Joint Statistical Meetings, August 2015.

Analysis of Clinical Trials: Theory and Applications. Taught by Alex Dmitrienko, Devan Mehrotra, and Jeff Maca at ASA's Joint Statistical Meetings, August 2015.

Techniques for Simulating Data in SAS. Taught by Rick Wicklin at ASA's Joint Statistical Meetings, August 2014.

Statistics for Spatio-Temporal Data. Taught by Noel Cressie and Christopher Wikle at ASA's Joint Statistical Meetings, July 2012.

Information-Theoretic Approaches to Empirical Science. Taught by David Anderson at the University of Alabama at Birmingham, January 2010.

Academic Service

University of West Florida

Department

2018-Present, Member, Proseminar Committee

2017-2018, Member (non-voting), Colloquium Committee

2016-2018, Member (non-voting), General Education Committee

2016-2018, Member (non-voting), Proseminar Committee

University

2018-Present, University Honors Program Committee

2016-Present, Reviewer for Office of Undergraduate Research project award proposals
2016-Present, Interviewer for the President's Scholarship Competition

Faculty Advisor

2018-Present, Minority Association of Pre-Medical Students

University of Mississippi Medical Center

Department

2013-2016, Consultant, Center of Biostatistics & Bioinformatics Walk-In Clinic
2013-2016, Biostatistical Lead, Department of Surgery
2015-2016, Biostatistical Lead, Department of Pediatrics
2015-2016, Biostatistical Lead, Department of Otolaryngology & Communicative Science
2014-2016, Member, Center of Biostatistics & Bioinformatics Curriculum Committee; responsible for developing and obtaining approval for MS and PhD programs in biostatistics and data science

The Jackson Heart Study

2015, Member, Jackson Heart Study's Annual Follow Up Taskforce
2014-2015, Member, Jackson Heart Study Lab Specimen Subcommittee
2014-2015, Member, Jackson Heart Study Ancillary Study Resource Unit

Professional Service

Data Safety and Monitoring Boards

2018-Present, A randomized controlled trial of early amniotomy during preterm induction of labor

Referee for Journals

Communications in Statistics - Theory and Methods
Journal of Probability and Statistics
BMJ Open
Ethnicity and Health
Journal of Human Hypertension
Journal of Interventional Cardiology
Journal of Sex & Marital Therapy

American Statistical Association

Continuing Education course monitor, JSM 2015
Statistics in Epidemiology session chair, JSM 2014
Continuing Education course monitor, JSM 2014

Council on Undergraduate Research

2018-Present, Reviewer, Posters on the Hill

Professional Affiliations

Caucus for Women in Statistics

American Statistical Association

- Florida Chapter
- Biometrics Section
- Section on Statistical Education
- History of Statistics Interest Group

Council on Undergraduate Research

Honors and Awards

November 2018, Faculty of the Month, Awarded by the UWF Math Club.

April 2018, Faculty of the Month, Awarded by the UWF Math Club.

September 2013, Winner, Charles R. Katholi Distinguished Dissertation Award,
Department of Biostatistics, University of Alabama at Birmingham.

February 2013, First place, Mathematics and Computer & Information Sciences
category, University of Alabama at Birmingham Graduate School Research Days.

2007-2008, Mathematics and Statistics Graduate Student Grant, University of West
Florida.

2007-2008, College of Arts and Sciences Merit Scholarship, University of West Florida.

2001-2006, Florida Bright Futures Scholarship.

Previous Research Support

UMMC Intradepartmental Discovery Support Program
Neurocognitive Monitoring in Pediatric Acute Lymphoblastic Leukemia
07/01/2016-06/30/2017
PI: Karlson, Role: Biostatistician.

U01-AT006239
Effects of Yoga on CVD Risk Factors among African Americans
09/30/2010--09/29/2016
PI: Marshall, Role: Co-Investigator; Lead Biostatistician

P50 HL-120163
Perceptions of Tobacco Use Among Vulnerable Populations
09/01/2013-08/31/2018
PI: Payne, Role: Biostatistician
UMMC Medical Student Research Program
Hepatocellular Carcinoma and Disparity among Socioeconomic Classes
01/01/2016-06/30/2019
PI: Aru, Role: Biostatistical mentor

HHSN268201300046C1
Jackson Heart Study
08/16/2013--07/15/2018
PI: Correa, Role: Biostatistician

N01-HC55021
Atherosclerosis Risk in Communities Study (ARIC)
02/01/2006-11/14/2016
PI: Mosley, Role: Biostatistician

U01-HL096917
ARIC Neurocognitive Study
07/07/2010-06/30/2019
PI: Mosley, Role: Biostatistician

T32-HL79888
UAB Biostatistics Pre-Doctoral Training Program
08/2008-08/2013
PI: Tiwari, Role: Pre-Doctoral Trainee

Achraf Cohen

11000 University Pkwy,
Pensacola, FL 32514
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acohen@uwf.edu
<https://pages.uwf.edu/acohen/>
(850) - 474 - 2625

Research interests

Statistical process monitoring, control charts, wavelets, statistics of wavelets coefficients, forecasting, data-driven methods, classification-machine learning.

Experience

Assistant Professor

Department of Mathematics and Statistics

University of West Florida

Aug 2018- PRESENT, USA

- Research with faculty in the Department of Mathematics and Statistics to develop new control charts and statistical process monitoring methods.
- Research with faculty at Electrical Engineering Department to propose new techniques for load forecasting in smart grid.
- Teach or taught undergraduate and graduate courses:
 - STA6990 Time Series Analysis,
 - STA6507 Nonparametric Statistics,
 - STA6246 Design and Analysis of Experiments,
 - STA4321 Intro. Mathematical Statistics,
 - STA6707 Multivariate Methods,
 - STA5900 MathStats Tools,
 - STA4051 Nonparametric Statistics,
 - STA6930 Proseminar in Statistics,
 - MAT4500 Proseminar in Math / Stats.
- Advise students.
- Service: Proseminar committee, General Education committee, EDD committee.

Postdoctoral Teaching Associate

Department of Mathematics and Statistics

University of West Florida

Feb 2016 - May 2018, USA

- Create and conduct new research projects/publications with faculty at Hal Marcus College of Science and Engineering, especially in the Department of Mathematics and Statistics.
- Develop and Submit grant proposals (3 NSF and 1 EPA).
- Teach graduate courses: Time Series Analysis, Nonparametric Statistics, and Multivariate Methods.

- Advise students with statistical analysis.
- Service: presentation proseminar, colloquium committee, mock interviews.

Graduate Teaching Associate

ISTIA - Graduate School of Engineering

The University of Angers

Oct 2012 - Dec 2015, France

- Taught courses:
 - Statistical quality control,
 - Applied statistics,
 - Reliability engineering.

Education

Ph.D. in Applied Statistics/Mathematics

University of Angers

Oct 2012- Dec 2015, France

Thesis: Fault detection and diagnosis in complex systems by multi-scale approaches. Advisor:

Dr. A. Kobi and Dr. T. Tiplica.

Engineer Telecoms and Computer Network (M.S.)

National School of Applied Science-Tangier

Sep 2006 - Jul 2011, Morocco

Thesis: Designing a discrimination multi-scale method, application to Stereoscopy. Advisors: Dr.

A. Ezzine and Dr. Y. Ruichek

Publications

PEER-REVIEWD JOURNALS AND CHAPTER BOOKS

1. A. Cohen, C. Messaoudi , H. Badir. A New Wavelet-Based Approach for Mass Spectrometry Data Classification. In: Zhao Y., Chen DG. (eds) New Frontiers of Biostatistics and Bioinformatics . ICSA Book Series in Statistics. Springer, Cham. 2018.
2. A. Cohen, R. Amin. The Effects of Normal Mixtures and Autocorrelation on the Fraction Non-Conforming. Communications in Statistics - Simulation and Computation,1-13. 2017.
3. A. Cohen, T. Tiplica, A. Kobi. OWave control chart for monitoring the process mean. Control Engineering Practice, Vol. 54, pp. 223-230. 2016.
4. A. Cohen, T. Tiplica, A. Kobi. Design of experiments and statistical process control using wavelets analysis. Control Engineering Practice, Vol. 49, pp. 129-138. 2016.
5. A. Ezzine, Y.Y. Alaoui, A. Cohen. Adaptive Multiscale Stereo Images Matching Based on Wavelet Transform Modulus Maxima. International Journal of Image Processing. Vol.6(5), pp. 373-379. 2012.

CONFERENCES & MEETINGS

6. T. Stevens, B. Ramachandran, A. Cohen. Economic Operation of Microgrid Energy Resources Considering Uncertainties. IEEE SoutheastCon. 2018.
7. A. Cohen. Wavelet-Based Methods for Data-Driven Monitoring. The 2018 American Statistical Association Conference on Statistical Practice, Portland, Oregon. Poster. 2018.
8. The 5th Workshop on Biostatistics and Bioinformatics in Atlanta, May 5-7. 2017.
9. ASA Conference on Statistical Practice (CSP2017) in Jacksonville, Feb 23-25. 2017.
10. FL ASA Annual Meeting in Jacksonville. 2017

11. A. Cohen, T. Tiplica, A. Kobi. Weighted Wavelets Coefficients for Monitoring Process Mean. International Conference on Advances in Control and Optimization of Dynamical Systems, Tiruchirappalli, India / IFAC-PapersOnline, Vol. 49-1, pp. 819-823. 2016.
12. A. Cohen, T. Tiplica, A. Kobi. Statistical process control for AR(1) or non-Gaussian processes using wavelets coefficients. Conference: 12th European Workshop on Advanced Control and Diagnosis, at Pilsen, Czech Republic. Volume: Journal of Physics: Conference Series 659. 2015
13. T. Tiplica, A. Cohen, A. Ezzine. Road signs detection in color images by statistical approach. Conference Proceeding, QUALITA2013, Compiègne, France. Vol. 49, pp. 129-138. 2013.

Grants

- Co-PI with Dr. Amin (PI). Environmental Education Local Grants Program, Total Project Costs: \$121,482. (not funded)
- Co-PI with Dr. Ramachandran (PI). NSF - Energy, Power, Control, and Networks (EPCN). Total Project Costs: \$303 611. (not funded)
- Co-PI with Dr. Ramachandran (PI) and Dr. Croicu (PI). NSF - Energy, Power, Control, and Networks (EPCN). Total Project Costs: \$ 239,647. (not funded)

Computer Science Skills

- Advanced Knowledge: R, Matlab, Microsoft Office, LaTeX.
- Intermediate Knowledge: SPSS, SAS, Photoshop, PHP/HTML/CSS, OS(Ubuntu, Windows, Mac).
- Basic Knowledge: Statistica, Octave, mySQL, C.

Awards and Scholarship activities

- Member, American Statistical Association
 - Florida Chapter
 - Quality and Productivity Section
 - Statistical Learning and Data Mining Section
 - Section on Statistical Computing
- Reviewer for:
 - A Proposal book. "Time Series Analysis and Forecasting Methods in R". Taylor and Francis Group.
 - Communications in Statistics-Simulation and Computation
 - Measurement
 - Entropy
 - Measurement and Control
 - Journal of Industrial Engineering International
- Featured Author in Advanced in Engineering, Canada. 2016.
- Doctoral Scholarship by Ministry of Higher Education and Research, France. 2012-15
- Engineer Degree Graduation Award by National School of Applied Sciences - Tangier, Morocco. 2011.

Dallas Snider

CONTACT INFORMATION

11000 University Parkway, Building 4
Pensacola, FL 32514
850-473-7348
dsnider@uwf.edu
Open Researcher and Contributor ID (ORCID): 0000-0002-1496-3583

EDUCATION

Ph.D. Integrated Computing (May 2011), Concentration: Information Science

University of Arkansas at Little Rock, Little Rock, AR

Dissertation: “Knowledge Discovery in Fetal Activity Data”

Adviser: Xiaowei Xu, Ph.D.

M.S. Instrumental Sciences (August 1994), Concentration: Spectroscopic Instrumentation

University of Arkansas at Little Rock, Little Rock, AR

Thesis: “Evaluation of Photodiode Arrays in Rocket Plume Monitoring and Diagnostics”

Adviser: M. Keith Hudson, Ph.D.

B.A. Physics (May 1992)

Hendrix College, Conway, AR

Adviser: Pradip K. Bandyopadhyay, Ph.D.

TEACHING INTERESTS

Data Mining

Database Design

Machine Learning

Information Visualization

Business Intelligence

Health Informatics

PROFESSIONAL EXPERIENCE

Associate Professor, University of West Florida Department of Computer Science, Pensacola, FL, August 2012-Present

- Teaching or have taught Java Programming, C++ Programming, Visual Basic, Data Mining, Data Warehousing, Database Administration, Database Security, Software Engineering Process, and Hacking for Defense.
- Co-Investigator on “Evaluation of Tools to Measure and Mitigate the Effects of Operational Stress,” a subcontract with prime contractor Florida Institute for Human and Machine Cognition, United States Air Force School of Aerospace Medicine Prime Award FA8650-18-C-6982, October 2018-present, awarded \$55,741.

- Associate investigator in mining wearable sensor data with the U.S. Navy’s Naval Aerospace Medicine Institute (Protocol NMOTC.2016.0012 and partnership agreement NCRADA-NAMRU-D-17-10049), May 2017-present.
- Principal Investigator on the Security and Software Engineering Research Center (S2ERC) research project, “Data Mining for Network Performance Assessment, Phase 2”, sponsored by Northrop Grumman Aerospace Systems, January 2015 – December 2015, awarded \$26,985.
- Co-Investigator on the Santa Rosa County School District project, “Instructional Evaluation Application”, June 2014 – August 2016, awarded \$314,306.
- Principal Investigator on the Security and Software Engineering Research Center (S2ERC) research project, “Data Mining for Network Performance Assessment”, sponsored by Northrop Grumman Aerospace Systems, January 2014 – December 2014, awarded \$26,985.
- Principal Investigator on the Security and Software Engineering Research Center (S2ERC) research project, “A Knowledge Engineering, Team-Based Approach to Introducing Security Assurance Cases”, sponsored by Northrop Grumman Aerospace Systems, January – December 2013, awarded \$22,050.
- Mentor for graduate student projects
- Serving on various committees for the Computer Science Department, the Hal Marcus College of Science and Engineering, the University, and the community.
- Reviewer for peer-reviewed journals and conference proceedings

Software Development Analyst Level 4, Northrop Grumman Information Systems, Little Rock, AR, January 2008-August 2012

- Lead architect and developer for the creation and implementation of a data warehouse for the Arkansas Department of Human Services containing highly sensitive and confidential data following the Kimball dimensional design methodology
- Developed ETL packages in SQL Server Integration Services to extract source system data from Oracle, SQL Server and SharePoint and then transform and load the data into fact and dimension tables
- Created dimensions and cubes in SQL Server Analysis Services for business intelligence applications
- Designed and developed reports in SQL Server Reporting Services using SQL and MDX that followed guidelines set forth by the United States Department of Health and Human Services for reporting compliance and compiling statistics
- Processed and visualized GIS data
- Created dashboards and scorecards in Performance Point
- Created database tables, stored procedures, functions, and security policies
- Collaborated with DBA’s and Quality Assurance team during the software development lifecycle
- Accountable for customer training, requirements gathering, coordinating testers, project documentation and bi-weekly status reports

Software Developer Level 4, Acxiom Corporation, Little Rock, AR, 1996 -2008

- Lead Developer for the creation and implementation of a standardized order fulfillment process within IBM’s DataStage on Acxiom’s grid operating system
- Lead Developer for Customer Fulfillment processes in a large-scale, distributed database in DataStage on AIX for JP Morgan Chase
- Provided Netezza/DataStage consulting for State Farm and Nationwide Insurance client account teams

- Provided DataStage consulting to the New York Life, TransUnion and General Motors client teams for interacting with their large-scale databases
- Managed software application development projects for Acxiom's Server-Based Fulfillment product
- Responsible for handling opt-outs, credit bureau data, reports, decoy insertion, campaign management files, Oracle SQL statements, and Oracle loads
- Collaborated with DBA's and system administrators to performance-tune hardware for optimum parallel processing, database, and DataStage flows
- Created custom data profiling program for Wolters-Kluwer in C++
- Enhanced Acxiom's existing Linux grid automation services written in Perl with a Visual Basic and PHP user interface
- Assisted with documentation and training
- Served as Oracle database administrator, source code manager, and Linux system administrator for my development team
- Wrote custom DataStage operators to read and load to Netezza
- Used Red Hat Package Manager on Linux to package and deploy software
- Designed and developed code to dynamically create scripts based on application metadata
- Met with customers and project manager to update the project status and to receive the customer's feedback
- Worked on a team of developers to create the Acxiom Solution Interface website
- Designed web pages in C# and contributed to Java business logic on Linux and AIX
- Provided on-call support and consulting for client account teams such as Time-Life, Sprint, AT&T Wireless, and Primedia
- Pioneered a process on a UNIX server to reduce a 12-hour mainframe process to 25 minutes for Quill
- Designed, developed, and documented several order fulfillment process for the gNeil Companies on UNIX
- Developed code to help build data warehouses for Staples and Global
- Participated in Year 2000 code reviews and code changes

Programmer/Analyst, Euronet (formerly Arkansas Systems, Inc.), Little Rock, AR, 1994 – 1996

- Responsible for the development, delivery and support of client-server Automated Teller Machine solutions in the United States, Mexico, and Hungary
- Used DB/2 and IBM's Visual Age C/C++ for OS/2, Borland C/C++ for Windows, AS/400 and System 36

PART-TIME EXPERIENCE

Author, Edgewood Solutions, LLC, January 2013 – present

Writing articles for the mssqltips.com website about best practices for SQL Server

Adjunct Instructor, ITT Technical Institute, December 2008 – June 2012

Lecturer in the following courses: Access Control, Authentication, and Public Key Infrastructure;
Information Systems Security Capstone Project, Linux Operating System, Linux Server Administration,
Computing and Productivity Software; Auditing IT Infrastructure for Compliance
Advising students, coordinating student assignments and grading quizzes and papers
Supervising laboratories; assisting and overseeing up to 30 students per session

Adjunct Instructor, University of Arkansas at Little Rock, August – December 2008,

August – December 2007, August – December 2006, January – December 2002

Instructed in the following subjects: Calculus I, Business Calculus, College Algebra, Elementary Algebra and a General Physics Lab

Lectured, created student assignments and tests, graded quizzes and exams

Supervised student assignments, tests and use of Maple software for mathematics

Database Developer, University of Arkansas for Medical Sciences College of Medicine,

October 2005 – April 2006

Assisted with the implementation of an online metabolomic database for the Department of Geriatrics in conjunction with the MidSouth Bioinformatics Center

Utilized Linux, Apache, MySQL and Perl

Adjunct Instructor, University of Central Arkansas, January 2003 – May 2006

Taught Intermediate Algebra courses

Lectured and created student assignments and tests

Graded quizzes and exams

JOURNAL PUBLICATIONS

1. G. Merrill Rice, **Dallas Snider**, Sabrina Drollinger, Chris Greil, Frank Bogni, Jeffrey Phillips, Anil Raj, Katherine Marco, Steven Linville, "Gender Differences in Dry-EEG Manifestations During Acute and Insidious Normobaric Hypoxia," *Aerospace Medicine and Human Performance*, (accepted for publication).
2. G. Merrill Rice, **Dallas Snider**, Sabrina Drollinger, Chris Greil, Frank Bogni, Jeffrey Phillips, Anil Raj, Katherine Marco, Steven Linville, "Dry-EEG Manifestations of Acute and Insidious Hypoxia During Simulated Flight," *Aerospace Medicine and Human Performance*, (accepted for publication).
3. Sarita Mantravadi and **Dallas Snider**, "Hepatitis C Direct Acting Antivirals and Disruptive Innovation," *Journal of Strategic Innovation and Sustainability*, vol. 12, no. 2, 2017, pp. 68-74.
4. Sarita Mantravadi and **Dallas Snider**, "Online Teaching Overview and Misconceptions: Two Keys of Sustainability in Online Courses and Tools," *Journal of Higher Education Theory and Practice*, vol. 17, no. 7, 2017, pp. 106-110.
5. Sarita Mantravadi and **Dallas Snider**, "Comparing Healthcare Systems of Luxembourg and the United States," *The Journal of Applied Business and Economics*, vol. 19, no. 7, 2017, pp. 60-74.
6. G. Merrill Rice, Dallas Snider, Jeffery L. Moore, J. Timothy Lavan, Rich Folga, Thomas B. VanBrunt, "Evidence for -Gz Adaptation Observed with Wearable Biosensors during High Performance Jet Flight," *Aerospace Medicine and Human Performance*, vol. 87, no. 12, December 2016.
7. G. M. Rice, T. B. VanBrunt, **D. H. Snider**, R. E. Hoyt, "Wearable Accelerometers in High Performance Jet Aircraft", *Aerospace Medicine and Human Performance*, vol. 87, no. 2, 2016, pp. 102-107.
8. **Dallas Snider**, John Coffey, Thomas Reichherzer, Norman Wilde, Chris Terry, Joe Vandeville, Allison Heinen and Sarah Pramanik, "Using Concept Maps to Introduce Software Security Assurance Cases," *CrossTalk: The Journal of Defense Software Engineering*, vol. 27, no. 5, 2014.
9. George Goehring, Thomas Reichherzer, Eman El-Sheikh, **Dallas Snider**, Norman Wilde, Sikha Bagui, John Coffey, Laura J. White, "A Knowledge-Based System Approach for Extracting Abstractions from Service Oriented Architecture Artifacts". *International Journal of Advanced Research in Artificial Intelligence (IJARAI)*, Vol. 2, No.3, 2013, pp. 44-52.

10. **D. H. Snider**, R. B. Shanks, R. Cole and M. K. Hudson, "Inexpensive Photodiode Arrays for Use in Rocket Plume and Hot Source Monitoring and Diagnostics," *Meas. Sci. Technol.*, 14 (2003) 1725-1733.
11. M. K. Hudson, R. B. Shanks, **D. H. Snider** and D. M. Lindquist, C. Luchini, and S. Rooke, "UV, Visible, and Infrared Spectral Emissions in Hybrid Rocket Plumes," *International Journal of Turbo and Jet Engines*, 15, 71-87 (1998).
12. M. K. Hudson, R. B. Shanks, **D. H. Snider** and D. M. Lindquist, "Spectroscopic Survey of Hybrid Plume Emissions," *AIAA Technical Paper No. 94-3015*, July 27-29, 1994.

PEER-REVIEWED CONFERENCE PROCEEDINGS

1. Chelsea Noelani Adams and **Dallas Snider**, "Effective Data Visualization in Cybersecurity", *Proceedings of the 2018 IEEE SoutheastCon*, April 19-22, 2018, Tampa, FL.
2. **Dallas Snider**, John Derek Morgan, Matthew Schwartz, Austin Adkison, Delikarl Jean Baptiste, "An Online Analytical Processing Database for Environmental Water Quality Analytics", *Proceedings of the 2018 IEEE SoutheastCon*, April 19-22, 2018, Tampa, FL.
3. Zachary Pannell, Bhuvaneswari Ramachandran, **Dallas Snider**, "Machine Learning Approach to Solving the Transient Stability Assessment Problem", *Proceedings of the 2018 IEEE Texas Power and Energy Conference (TPEC)*, February 8-9, 2018, College Station, TX.
4. **Dallas H. Snider**, G. Merrill Rice, Thomas B. VanBrunt, Robert E. Hoyt, "Knowledge Discovery Processes Implemented in Evaluating Wearable Sensors in High Performance Jet Aircraft," *Proceedings of the 2016 International Conference on Computational Science and Computational Intelligence (CSCI'16)*, December 15-17, 2016, Las Vegas, NV.
5. Glenda Mayo and **Dallas Snider**, "Building Automation Systems and Cyber Security: A Multiple Discipline Perspective," *Proceedings of the American Society for Engineering Management 2016 International Annual Conference*, October 26-29, 2016, Charlotte, NC.
6. Mike Ford, Cody Mallery, Frank Palmasani, Michael Rabb, Reid Turner, Lem Soles and **Dallas Snider** "A Process to Transfer Fail2ban Data to an Adaptive Enterprise Intrusion Detection and Prevention System," *Proceedings of the 2016 IEEE SoutheastCon*, March 31-April 3, 2016, Norfolk, VA.
7. Lem Soles, Thomas Reichherzer and **Dallas Snider** "A Tool Set for Managing Virtual Network Configurations," *Proceedings of the 2016 IEEE SoutheastCon*, March 31-April 3, 2016, Norfolk, VA.
8. Thomas Cole Amick, Lem R. Soles, **Dallas H. Snider**, "Moving Towards an Adaptive Enterprise Intrusion Detection and Prevention System," *Proceedings of the 2015 International Conference on Artificial Intelligence (ICAI'15)*, July 27-30, 2015, Las Vegas, NV.
9. Lem R. Soles, Thomas Reichherzer, **Dallas Snider**, "Creating a Cost Effective Air to Ground Network Simulation Environment," *Proceedings of the 2015 IEEE SoutheastCon*, April 9-12, 2015, Fort Lauderdale, FL.
10. **Dallas Snider**, Glenda Mayo, Sridhar Natarajan, "Similarity Measures in Smart Building Electrical Demand Data," *Proceedings of the 2015 IEEE SoutheastCon*, April 9-12, 2015, Fort Lauderdale, FL.
11. Sarah Pramanik and **Dallas Snider**, "Defining Threats Across Organizational Boundaries," *Proceedings of the 11th International Conference and Expo on Emerging Technologies for a Smarter World (CEWIT 2014)*, October 29-30, 2014, Melville, NY.

12. John Coffey, **Dallas Snider**, Thomas Reichherzer, Norman Wilde, "Concept Mapping for the Efficient Generation and Communication of Security Assurance Cases", *Fifth International Multi-Conference on Complexity, Informatics and Cybernetics (IMCIC 2014)*, March 4-7, 2014, Orlando, FL.
13. **D. H. Snider** and X. Xu, "Mining Fetal Magnetocardiogram Data for High-Risk Fetuses," *Proceedings of the 2011 IEEE International Conference on Bioinformatics and Biomedicine*, November 2011, 1066-1068.
14. **D. H. Snider** and M. K. Hudson, "Evaluation of Photodiode Arrays in Rocket Plume Monitoring and Diagnostics," *Proc. Ark. Acad. Sci.*, 1994, 48, 174-180.

BOOK CHAPTERS

1. Robert E. Hoyt and **Dallas H. Snider**, "Introduction to Data Science," in *Health Informatics: Practical Guide for Healthcare and Information Technology Professionals*, 6th ed., 978-1365524806, LuLu.com, February 2017.
2. John W. Coffey, Arthur Baskin and **Dallas Snider**, "Knowledge Elicitation and Conceptual Modeling to Foster Security and Trust in SOA System Evolution", in *Emerging Trends in The Evolution of Service-Oriented and Enterprise Architectures*, 978-3319405643, Springer, August 2016.

ORGANIZED WORKSHOP

Robert Hoyt and **Dallas Snider**, "Predictive Analytics using Open Source Machine Learning WEKA Software," iHealth 2017 Clinical Informatics Conference, Philadelphia, PA, May 2, 2017.

INSTRUCTIONAL MEDIA

1. **Dallas Snider**, *SQL Server 2016 Database Reporting: Operational Reporting and Mobile Dashboards with SSRS 2016*, Packt Publishing, ISBN 9781787121249, February 2017.
2. **D. H. Snider**, *Creating Reports with SQL Server 2012 Reporting Services*, Packt Publishing, ISBN 978-1-78217-718-0, November 2013.

PEER-REVIEWED CONFERENCE PRESENTATIONS

1. **D.H. Snider**, G.M. Rice, "Dry EEG Technology and Potential Applications in Operational Environments," Aerospace Medical Association's 89th Annual Scientific Meeting, May 6-10, 2018, Dallas, TX. Abstract appears in *Aerospace Medicine and Human Performance*, vol. 89, no. 3, March 2018, p. 173.
2. G.M. Rice, **D.H. Snider**, S. Drollinger, C. Greil, F. Bogni, J.B. Phillips, G. Gibson, A. Raj, "Dry EEG Manifestations of Changes in Inspired Oxygen and Cognitive Workload," Aerospace Medical Association's 89th Annual Scientific Meeting, May 6-10, 2018, Dallas, TX. Abstract appears in *Aerospace Medicine and Human Performance*, vol. 89, no. 3, March 2018, p. 243.
3. J. Leibig, G.M. Rice, **D.H. Snider**, "A Comparison of Two Lead-Based Cardiac Ambulatory Recording Devices Measuring In-Flight R-R Intervals: A Zephyr Biomodule™ & Phillips Holter™ Monitor," Aerospace Medical Association's 88th Annual Scientific Meeting, April 29-May 4, 2017, Denver, CO. Abstract appears in *Aerospace Medicine and Human Performance*, vol. 88, no. 3, March 2017, p. 311.
4. G.M. Rice, **D.H. Snider**, J.L. Moore, J. LaVan, R.V. Folga, T.B. Van Brunt, "Batman Syndrome: Evidence of -Gz Adaptation during In-flight Physiologic Monitoring of the Blue Angels," Aerospace Medical Association's 88th Annual Scientific Meeting, April 29-May 4, 2017, Denver, CO. Abstract appears in *Aerospace Medicine and Human Performance*, vol. 88, no. 3, March 2017, p. 301.

5. Robert Hoyt and **Dallas Snider**, “IBM Watson Analytics Academic Program,” American Medical Informatics Association’s iHealth 2016 Conference, Minneapolis, MN, May 4-6, 2016.
6. G.M. Rice, T. VanBrunt, **D.H. Snider**, R.E. Hoyt, “Physiologic Responses Obtained from Wearable Biosensors during High Performance Jet Aircraft Maneuvers,” Aerospace Medical Association’s 87th Annual Scientific Meeting, April 24-28, 2016, Atlantic City, NJ. Abstract appears in *Aerospace Medicine and Human Performance*, vol. 87, no. 3, March 2016, p. 283.
7. G.M. Rice, T. VanBrunt, **D.H. Snider**, R.E. Hoyt, “A New Golden Age? Validation of Wearable Accelerometers in High Performance Jet Aircraft,” 86th Annual Meeting of the Aerospace Medical Association, May 10-14, 2015, Lake Buena Vista, FL. Abstract appears in *Aerospace Medicine and Human Performance*, vol. 86, no. 3, March 2015, p. 307.
8. G.M. Rice, T. VanBrunt, **D.H. Snider**, R.E. Hoyt, "Physiologic Responses Recorded By Wearable Bio-Sensors During 'In-Flight' High Performance Aircraft Maneuvers," 86th Annual Meeting of the Aerospace Medical Association, May 10-14, 2015, Lake Buena Vista, FL. Abstract appears in *Aerospace Medicine and Human Performance*, vol. 86, no. 3, March 2015, p. 307.

INTERNAL GRANTS

1. Principal Investigator for UWF Quality Enhancement Project, *Communication for Professional Success*, “Improving Communication and Collaboration in Computer Science Students Phase 2”, 2016-2017 Academic Year, awarded \$5,000.
2. Office of Undergraduate Research Travel Award for five students to present at the 2016 IEEE SoutheastCon, March 7, 2016, awarded \$5,000.
3. College of Science and Engineering Resource Allocation Committee travel funds for presentation of research at the Aerospace Medical Association’s 87th Annual Scientific Meeting, February 26, 2016, awarded \$604.00.
4. Principal Investigator for UWF Quality Enhancement Project, *Communication for Professional Success*, “Improving Communication and Collaboration in Computer Science Students”, 2015-2016 Academic Year, awarded \$4,000.
5. College of Science, Engineering and Health Resource Allocation Committee travel funds for presentation of research at the 2015 IEEE SoutheastCon, February 20, 2015, awarded \$677.12.
6. College of Arts and Sciences Resource Allocation Committee travel funds for presentation of research at the May 2014 Security and Software Engineering Research Center Showcase, February 21, 2014, awarded \$527.12.
7. College of Arts and Sciences Resource Allocation Committee travel funds for presentation of research at the May 2013 Security and Software Engineering Research Center Showcase, March 1, 2013, awarded \$350.00.

PEER-REVIEWED POSTER PRESENTATIONS

1. Sabrina Drollinger, G. Merrill Rice, **Dallas Snider**, Chris Greil, Frank Bogni, Jeffrey Phillips, Steven Linville, Katherine Marco, Anil Raj, “Impact of Hypoxia on Brain Activity and Flight Simulation

Performance,” 2016 U.S. Department of Defense Military Health System Research Symposium, August 20-23, 2016, Kissimmee, FL.

2. G. Merrill Rice, **Dallas Snider**, Jeffrey L. Moore, J. Timothy Lavan, Rich Folga, “Evidence for –Gz Adaptation Observed with Wearable Biosensors during High Performance Jet Flight,” 2016 U.S. Department of Defense Military Health System Research Symposium, August 15-18, 2016, Kissimmee, FL.
3. **Dallas Snider**, Conni Carnley, Dave Dawson, Pam Northrup, Preston Obray, Liz West, “Professional Educators Assessment and Results System (PEARS)”, Future of Education Technology Conference, January 15, 2016, Orlando, FL.
4. **D. H. Snider**, R. B. Govindan, X. Xu, H. Preissl, H. Eswaran and C. Lowery, "Signatures of High-Risk Condition in Fetal Cardiogram," 2009 Society for Gynecologic Investigation Annual Scientific Meeting, March 2009.

MAGAZINE ARTICLES

Glenda Mayo and **Dallas Snider**, “Cyber Security for Buildings,” *Facility Executive*, July 2016.

POSTER PRESENTATIONS

1. Delikarl Jean Baptiste, Austin Adkison, **Dallas Snider**, Matthew Schwartz, John Morgan, "An Online Analytical Processing Database for Environmental Water Quality Analytics," 2017 UWF Student Scholar Symposium, April 20, 2017, Pensacola, FL.
2. William Spaid, **Dallas Snider**, Jason Ortegren, "Calculating the Pearson Correlation of Barometric Pressure and Rainfall Levels using Structured Query Language," 2017 National Conference on Undergraduate Research, April 6-8, 2017, Memphis, TN.
3. Mike Ford, Cody Mallery, Frank Palmasani, Michael Rabb, Reid Turner, Lem Soles and **Dallas Snider**, “A Process to Transfer Fail2ban Data to an Adaptive Enterprise Intrusion Detection and Prevention System,” 2016 UWF Student Scholar Symposium and Faculty Research Showcase, April 21, 2016, Pensacola, FL.
4. Lem Soles, Thomas Reichherzer and **Dallas Snider**, “A Tool Set for Managing Virtual Network Configurations,” 2016 UWF Student Scholar Symposium and Faculty Research Showcase, April 21, 2016, Pensacola, FL.
5. Lauren Amick, Ramar Baker, Teresa Jouben, Alia Layne, Skye Li, Hi Tran, **Dallas Snider**, “Professional Educators Assessment and Results System (PEARS)”, 2016 UWF Student Scholar Symposium and Faculty Research Showcase, April 21, 2016, Pensacola, FL.
6. Lem Soles, Thomas Reichherzer, **Dallas Snider**, “Creating a Cost Effective Air to Ground Network Simulation Environment,” 2015 Student Scholar Symposium and Faculty Research Showcase, April 23, 2015, Pensacola, FL.
7. **Dallas Snider**, Glenda Mayo, Sridhar Natarajan, “Similarity Measures in Smart Building Electrical Demand Data,” 2015 Student Scholar Symposium and Faculty Research Showcase, April 23, 2015, Pensacola, FL.
8. **D. Snider**, T. Reichherzer, N. Wilde, "Data Mining for Network Performance Assessment," 2014 UWF Faculty Showcase, April 2014, Pensacola, FL.
9. **D.H. Snider**, “Addressing Big Data Challenges and Opportunities within Florida’s Electrical Energy Sector”, 2013 Florida Energy Summit, October 14-15, 2013, Orlando, Florida.

PRESENTATIONS

1. **Dallas Snider**, "Utilizing Wearable Sensors to Detect Cognitive Impairment in Pilots," ITEN Wired 2018 Summit, October 2, 2018, Pensacola Beach, Florida
2. **D. H. Snider**, "Communicating Security Procedures, Threats and Mitigation Strategies," ITEN Wired 2014 Summit, October 2-3, 2014, Pensacola Beach, Florida
3. **D. H. Snider**, J. W. Coffey, T. Reichherzer, N. Wilde, C. J. Terry, J. Vandeville, A. J. Heinen, S. C. Pramanik. "A Knowledge Engineering, Team-Based Approach to Introducing Security Assurance Cases", NSF Security and Software Engineering Research Center Showcase, November 13-14, 2013, Pensacola, FL.
4. **D. H. Snider**, "The Internet of Things," ITEN Wired 2013 Summit, September 2013, Pensacola Beach, FL.
5. **D. H. Snider**, "Improving Decision Support Capabilities in Government Operations," 2012 Northrop Grumman Software Engineering Symposium, March 2012.
6. **D. H. Snider**, X. Xu and R. B. Govindan, "Mining Placental Deficiencies in Fetal Magnetocardiogram Data," 2010 MidSouth Computational Biology and Bioinformatics Society Annual Conference, February 2010.
7. **D. H. Snider**, X. Xu and R. B. Govindan, "Knowledge Discovery within Fetal Activity Data," Arkansas Academy of Science Annual Meeting, April 2008.

CONFERENCES ATTENDED

- Hitachi Social Innovation Forum 2016, November 15, 2016, Santa Clara, CA.
- NSF Cloud Workshop on Experimental Support for Cloud Computing, December 11-12, 2014, Arlington, Virginia.
- ITEN Wired 2012 Summit, September 14, 2012, Pensacola Beach, Florida.

AREAS OF TECHNICAL EXPERTISE

- Software Development: C/C++, Oracle PL/SQL, MDX, Oracle ProC, Perl, PHP, IBM Mainframe Assembler, Java and UNIX/AIX/Linux/Orchestrate Shell Scripting
- Databases: SQL Server and Azure, Oracle, Netezza, DB/2 and MySQL
- Operating Systems: Hadoop Distributed File System, Linux, Windows, and IBM MVS
- Database Design: SQL Server Management Studio and Sybase PowerDesigner Data Architect
- ETL Tools: SQL Server Integration Services and IBM DataStage 7.01r1 – 7.51a
- Information Visualization: SQL Server Reporting Services, PerformancePoint, SharePoint
- Data Analysis: MATLAB, SQL Server Analysis Services
- Data Hygiene: U.S. Postal Presort and Address Hygiene, Canadian Postal Presort and Canadian Address Hygiene
- Machine Learning: WEKA, libSVM, See5, C Clustering Library, RapidMiner
- Change Management and Deployment: RedGate, Red Hat Package Manager, Visual Source Safe, PVCS, Subversion and InstallShield
- Integrated Development Environments: MS-Visual Studio, Borland C/C++, jGRASP and Eclipse

- Microsoft Office Suite Products: Visio, Project, Word, Excel, Outlook, PowerPoint, Performance Point and Share Point
- Online Teaching: Canvas, Camtasia Studio, Blackboard Collaborate, Desire2Learn

HONORS AND AWARDS

- Northrop Grumman Arkansas DHS Project Employee of the Month, 2009
- Monetary awards from Acxiom for outstanding performance, 2005, 2006, and 2007
- Acxiom Client Gold Award, 2006
- Acxiom Client Silver Award, 2007
- Acxiom Market Management Applications Associate of the Quarter, 2003
- Acxiom Direct Media Business Unit Associate of the Month, 1998
- Best Student Presentation, Arkansas Academy of Science Annual Meeting, 1994
- Robert Byrd Honors Scholarship, 1988
- Arkansas Governor's Scholarship, 1988

MEMBERSHIPS

- Senior Member, Institute of Electrical and Electronics Engineers (IEEE) Computer Society
- Association for Computing Machinery (ACM)
- Oracle Technology Network

Microsoft Developer Network

DR. SIKHA S BAGUI

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PHONE (850)474-3022 (Office)

Citizenship: US citizen

ACADEMIC BACKGROUND

Ed.D, Curriculum and Instruction. Major: Math/Stat/Science/Computer Science, University of West Florida, Pensacola, Florida, December, 2000.

MBA, IS specialization, University of Toledo, Toledo, Ohio, August, 1986.

BS, Cuttington University, Monrovia, Liberia, January 1984.

(Also completed one year(1990-1991) in Ph.D. program at Kent State University, Kent, Ohio, MIS specialization).

ACADEMIC EXPERIENCE

Professor, Department of Computer Science, University of West Florida, Pensacola, Florida (August 2013 – present)

Associate Professor, Department of Computer Science, University of West Florida, Pensacola, Florida (August 2008 – August 2013).

Assistant Professor, Department of Computer Science, University of West Florida, Pensacola, Florida (August 2004 – Aug 2008).

Lecturer, Department of Computer Science, University of West Florida, Pensacola, Florida (August 1999-August 2004).

Adjunct Instructor, Department of Computer Science, University of West Florida, Pensacola, Florida (Jan 1992-August 1999).

Graduate Teaching Assistant, Department of Management Information Systems, Kent State University, Kent, Ohio, (August 1990-June 1991).

Instructor, Department of Information Systems, University of Toledo, Toledo, Ohio (June 1986-August 1990).

ADMINISTRATIVE EXPERIENCE

Chair, Department of Computer Science, University of West Florida, Pensacola, FL (August 2012 – August 2017)

Founding Director, Center for Cybersecurity, University of West Florida, Pensacola, FL (January 2014 – March, 2015)

Interim Associate Chair, Department of Computer Science, University of West Florida, Pensacola, Florida (January 2011 – July 2012).

Program Director, CIS/IT, MSA/DBA, MS/CS-DB, Department of Computer Science, University of West Florida, Pensacola, Florida (Fall 2007 – August 2012).

COURSES TAUGHT

Database Systems, Data Mining, Database Administration, Advanced Database Systems, Seminar in SOA, Java Programming, Data Structures and Algorithms, Advanced Visual Programming, Visual Programming, Systems Documentation, Multimedia Systems, Business Systems Design, Microcomputer Application Packages, Introduction to Management Information Systems, COBOL I, COBOL II.

RESEARCH INTERESTS

Data mining and Big Data analytics, SQL, database design and architecture, object-oriented databases, web databases, pattern recognition, statistical computing, Computer Science Education.

PUBLICATIONS

Books

1. Earp, R. and **Bagui, S.** (2003). *Learning SQL: A Step-by-Step Guide using Oracle*, Addison Wesley, ISBN: 0-201-77363-5.
2. **Bagui, S.** and Earp, R. (2003). *Database Design Using ER Diagrams*, CRC Press, Auerbach Publications, ISBN: 0-8493-1548-4.
3. **Bagui, S.** and Earp, R. (2004). *Learning SQL: A Step-by-Step Guide using Access*, Addison Wesley, ISBN: 0-321-11904-5.
4. Earp, R., and **Bagui, S.** (2006). *Advanced SQL Functions in Oracle 10g*, Wordware Publishing, ISBN: 13: 978-1-59822-021-6.
5. **Bagui, S.** and Earp, R. (2006) *Learning SQL Using SQL Server 2005*, O'Reilly Publishers, ISBN: 0-596-10215-1.

6. Earp, R. and **Bagui, S.** (2008). *Practical Guide to Using SQL in Oracle*, Wordware Publishing, ISBN: 13:978-1-59822-063-6.
7. **Bagui, S.** and Earp, R. (2009). *SQL Essentials in Access*, Linus Publications, ISBN: 13:978-1-60797-040-8.
8. **Bagui, S.** and Earp, R. (2011). *Essential of SQL Using SQL Server 2008*, Jones and Bartlett, ISBN: 978-0-7637-8138-5.
9. **Bagui, S.** and Earp, R. (2012). *Database Design Using ER Diagrams*, 2nd edition, Taylor and Francis. ISBN: 9781439861769.
10. **Bagui, S.**, and Earp, R. (2015). *SQL Server 2014: A Step by Step Guide to Learning SQL*, Nova Publishers. ISBN: 978-1-63463-543-1. E-book version ISBN: 978-1-63463-554-7.
11. **Bagui, S.** and Earp, R. (2015). *Practical Guide to Using SQL in Oracle*, 2nd edition, BVT Publishing. ISBN: 978-1-62751-647-1 (e-Book) or ISBN: 978-1-62751-648-8 (loose leaf version).

International Editions (books)

12. Earp, R. and **Bagui, S.** (2003). *Learning SQL: A Step-by-Step Guide using Oracle*, Pearson Education Asia Limited and Tsinghua University Press, EISBN 0-201-77363-5 and ISBN: 7-302-06755-4 (In Chinese language).
13. **Bagui, S.** and Earp, R. (2004). *Learning SQL: A Step-by-Step Guide using Access*, Addison Wesley, ISBN: 0-321-21075-1 (International Edition).
14. **Bagui, S.** and Earp, R. (2007). *Naucite SQL na SQL Serveru 2005*, O'Reilly Publishers, ISBN: 978-86-7555-309-0.

Journal Articles (Published/Accepted)

1. **Bagui, S.** (1998). Reasons for increase in learning with multimedia, *The Journal of Educational Multimedia and Hypermedia*, 7(1), 03-18.
2. Bagui, S.C., **Bagui, S.**, Pal, K., and Pal, N. (2003). Breast Cancer detection using Rank Nearest Neighbor Classification Rule, *Pattern Recognition*, **36**(1), 25-34.

3. **Bagui, S.** and Rodgers, E. (2003). Impact of Kolb's Learning Style on Selection of Media During Authoring of Multimedia, *Journal of Interactive Instruction and Development*, **15**(4), 3-11.
4. **Bagui, S.** (2003). Achievements and Weakness of Object-Oriented Databases, *Journal of Object Technology*, **2**(4), 29-41.
5. **Bagui, S.** and Rodgers, E. (2003). Correlation between Kolb's Experiential Learning Style and Selection of a Structure in Multimedia Authoring, *Journal of Interactive Instruction and Development*, **16**(2), 10-24.
6. **Bagui, S.** and Bagui, S.C. (2004). An Algorithm and Code for Computing Exact Critical Values for the Kruskal-Wallis Nonparametric One-Way ANOVA, *Journal of Modern Applied Statistical Methods*, **3**(1), 498-503.
7. **Bagui, S.** and Rodgers, E. (2005). Relationship between Kolb's Experiential Learning Style and Use of Navigational Features during the Authoring of Multimedia Projects, *Journal of Interactive Instruction and Development*, **17**(3), 3-14.
8. **Bagui, S.** and Bagui, S.C. (2005). An Algorithm and Code for Computing Exact Critical Values for Friedman's Nonparametric ANOVA, *Journal of Modern Applied Statistical Methods*, **4**(1), 312-318.
9. **Bagui, S.** (2006). An Approach to Mining Crime Patterns, *International Journal of Data Warehousing and Mining*, **2**(1), 50-80.
10. Bagui, S.C., **Bagui, S.**, Chatterjee, A., and Mehra, K.L. (2006). Classification with repeated independent measurements under separate sampling scheme, *Statistical Methodology*, **3**, 234-251.
11. **Bagui, S.**, (2006). Rules for Migrating from Entity Relationship (ER) diagrams to Object Relationship (OR) diagrams, *Computing Letters*, **2**(4), 177-191.
12. **Bagui, S.** and Bagui, S.C. (2006). Computing Percentiles of Skew-Normal Distributions, *Journal of Modern Applied Statistical Methods*, **5**(2), 575-588.
13. **Bagui, S.**, Mink, D., and Cash, P. (2007). Data Mining Techniques to Study Voting Patterns in the US, *Data Science Journal*, **6**, 46-63.

14. **Bagui, S.**, (2007). A Formal Definition for Translating XML Documents to the ER Model, *International Journal of Metadata, Semantics and Ontologies*, **2**(1), 54-66.
15. **Bagui, S.**, Bagui, S.C., Pal, N.R., and Matin, M.A. (2007). Comparison between k -NN and k -RNN Classification Rules: A Monte Carlo Simulation Study, *Journal of Statistical Research*, **41**(1), 69-79.
16. **Bagui, S.**, (2007). Mapping XML Schema to Entity Relationship and Extended Entity Relationship Models, *International Journal of Intelligent Information and Database Systems*, **3**(4), 325-345.
17. **Bagui, S.** Just, J., and Bagui, S. (2009). Deriving Strong Association Mining Rules Using a Dependency Criteria, the Lift Measure, *International Journal of Data Analysis Techniques and Strategies (IJDATS)*, **1**(3), 297-312.
18. **Bagui, S.** and Loggins, A. (2009). Generating Join Queries for Large Databases and Web Services, *International Journal of Information Technology and Web Engineering (IJITWE)*, **4**(2), 54-72.
19. **Bagui, S.** and Ter Haar, L. (2009). Database Education in the New Millenium, *The Journal of Computing Sciences in Colleges*, **24**(4), 80-87.
20. **Bagui, S.** (2009). Mapping OWL to the Entity Relationship and Extended Entity Relationship Models, *International Journal of Knowledge and Web Intelligence (IJKWI)*, **1**(1/2), 125-149.
21. Caffrey, J. M., Landing, W. M., Nolek, S. D., Gosnell, K., **Bagui, S. S.**, and Bagui, S.C. (2010). Atmospheric Deposition of Mercury and Major Ions to the Pensacola (Florida) Watershed: spatial, seasonal and inter-annual variability, *The Journal of Atmospheric Chemistry and Physics*, **10**, 4593-4616.
22. **Bagui, S.** Just, J., Bagui, S, and Hemasinha, R. (2010). Using a Cosine-type Measure to Derive Strong Association Mining Rules, *International Journal of Knowledge Engineering and Data Mining (IJKEDM)*, **1**(1), 69-83.
23. **Bagui, S.** and Musgrove, C. (2010). Optimizing Outerjoins in Large Databases Using Cluster Based Partitioning. *International Journal of Data Analysis and Information Systems (IJDAIS)*, **2**(2), 55-65.

24. **Bagui, S.** Islam, M., and Bagui, S. (2011). An Architecture for Query Optimization Using Association Rule Mining. *International Journal of Knowledge Based Organizations* (IJKBO), 1(4), 32-55.
25. **Bagui, S.**, Brown, J., Caffrey, J., and Bagui, S. (2012). Designing a Relational Database for Tracking and Analysis of Atmospheric Deposition of Mercury and Trace Metals in the Pensacola (Florida) Bay Watershed, *International Journal of Sustainable Society (IJSSoc)*, 4(3), 240-265.
26. **Bagui, S.** and Sweetman, R. (2012). Modeling Service Data Objects (SDO's) To the Entity-Relationship (ER) Model, by Bagui and Sweetman. *International Journal of Information Technology and Web Engineering (IJITWE)*, 7(3), 14-36.
27. **Bagui, S.**, Spratlin, S., and Bagui, S. (2013). Calculating Support, Confidence and Lift in Multi-relational XML Data, *International Journal of Data Analysis and Information Systems* (IJDAIS), Vol. 5(1), 13-27.
28. Goehring, G., Reichherzer, T., El-Sheikh, E., Snider, D., Wilde, N., **Bagui, S.**, Coffey, J., White, L.J. (2013). A Knowledge-Based System Approach for Extracting Abstractions from Service Oriented Architecture Artifacts in *International Journal of Advanced Research in Artificial Intelligence (IJARAI)*, Vol. 2(3), 44-52.
29. Bagui, S.C., **Bagui, S.**, and Hemasinha, R. (2013). Nonrigorous proofs of stirling's formula, *Mathematics and Computer Education*, Vol. 47(2), 115–125.
30. El-Sheikh, E., Reichherzer, T., White, L., Wilde, N., Coffey, J., **Bagui, S.**, Goehring, G., Baskin, A. (2013). Towards Enhanced Program Comprehension for Service Oriented Architecture (SOA) Systems, *Journal of Software Engineering and Application (JSEA)* Vol. 6(9), 435-445.
31. **Bagui, S.** and Zaynako, A. (2014). Determining Approximate Functional Dependencies using Association Rule Mining, *International Journal of Research in Computer Applications and Management (IJRCM)*, Vol. 4(1), 10-17.
32. **Bagui, S.**, and Bouressa, J. (2014). Mapping RDF and RDF-Schema to the Entity Relationship Model, *Journal of Emerging Trends in Computing and Information Sciences*, Vol. 5(12), 953-961.

33. Gonen, B., Fang, X., El-Sheikh, E., **Bagui, S.**, Wilde, N., Zimmerman, A. (2014). Ontological Support for the Evolution of Future Services Oriented Architectures, *Transaction on Machine Learning and Artificial Intelligence (TMLAI)*, Vol. 2(6), 77-90.
34. **Bagui, S.**, and Nguyen, L. (2015). Database Sharding: To provide fault tolerance and scalability of Big Data on the Cloud, *International Journal of Cloud Applications and Computing (IJCAC)*, Vol. 5(2), 36-52.
35. Fridge, E., and **Bagui, S.** (2016). Impact of Automated Software Testing Tools on Reflective Thinking and Student Performance in Introductory Computer Science and Programming Classes, *International Journal of Information and Communication Technology Education (IJICTE)*, 12(1), 24-40.
36. Bagui, S., **Bagui, S.**, and Hemasinha, R. (2016). The Statistical Classification of Breast Cancer Data, *International Journal of Statistics and Applications*, 6(1), 15-22.
37. **Bagui, S.**, Xingang, F., Kalaimmanan, E., Bagui, S., and Sheehan, J. (2017). Comparison of Machine Learning Algorithms for classification of VPN and non-VPN Network Traffic Flow Using Time-Related Features, *Journal of Cyber Security Technology*, 1(2), 108-126.
38. Xingang F., **Bagui, S.**, and Bagui, S. (2017). "Improving Virtual Screening Predictive Accuracy of Human Kallikrein 5 inhibitors using Machine Learning Models, *Computational Biology and Chemistry*, 69, 110-119.
39. Cox, A., Guzman, I., Crommer, K., **Bagui, S.** (2017). Virtual world, Virtual Reality, and Augmented Reality: Different Types, Different Users, Different Purchase Intentions, *Journal of Virtual Worlds Research*, 10(1), 1-21.
40. **Bagui, S.** and Devulapalli, K. (2018). A Comparison of Hive's Optimization Techniques, *International Journal of Big Data Intelligence (IJBDI)*, 5(4), 243-257.
41. **Bagui, S.**, and Spratlin, S. (2018). A Review of Data Mining Algorithms on Hadoop's MapReduce, *International Journal of Data Science*, 3(2), 146-169.
42. **Bagui, S.**, John, S., Baggs, J., Bagui, S. (2018). A Parallel Implementation of Information Gain Using Hive in conjunction with MapReduce for Continuous Features, *Lecture Notes in Computer Science*, submitted.

Refereed Publication in Encyclopedia

1. **Bagui, S.** (2006). Generalizations and Specializations and Categories in ER Diagrams, *Encyclopedia of Database Technologies*, Idea Group Publishing, 233-239.

Refereed Proceedings

1. **Bagui, S.** (2005). Rules for Migrating from ER and EER diagrams to Object-Relationship (OR) diagram, *Proceedings of the 43rd ACM Southeast (ACMSE) Conference*, 1, 243-244, Kennesaw, GA, March 18-20 (acceptance rate – about 28%).
2. **Bagui, S.** and Walker, D. (2006). A Java Based Parser Software for Converting XML Documents to the ER Model and Relational Databases, *Proceedings of the 2006 International Conference on Semantic Web and Web Services*, 166-169, Las Vegas, Nevada, June 26-29 (acceptance rate – approx. 32%).
3. **Bagui, S.** (2007). Developing a conceptual model for XML Schema, *Proceedings of the 2007 International Conference on Semantic Web and Web Services*, 69-71, Las Vegas, Nevada, June 25-28 (acceptance rate – about 32%).
4. Prayaga, L., White, L., **Bagui, S.** (2009). Innovative Strategies to Build IT Workforce, *Proceedings of 22nd Conference on Software Engineering Education and Training*, 202-209.
5. **Bagui, S.** Mohammad, I. (2010). Query optimization in large databases using Association Rule Mining, *Proceedings of the 48th ACM Southeast Conference*, Oxford, MS, April 15-17.
6. El-Sheikh, E., **Bagui, S.**, Firesmith, D., Petrov, I., Wilde, N., Zimmermann, A. (2013). Towards Semantic-Supported SmartLife System Architectures for Big Data Services in the Cloud. *Proceedings of the 5th International Conferences on Advanced Service Computing*, May 27-June 1, Valencia, Spain, IARIA XPS Press.
7. Zimmermann, A., Gonen, B., Schmidt, R., El-Sheikh, E., **Bagui, S.**, and Wilde, N. (2014). Adaptable Enterprise Architectures for Software Evolution of SmartLife Ecosystem. *Proceedings of IEEE EDOC – SoEA4EE 2104: The Sixth Workshop on Service oriented Enterprise Architecture for Enterprise Engineering*, Sept. 1-5, 2014, Ulm, Germany.
8. Gonen, B., Fang, X., El-Sheikh, E., **Bagui, S.**, Wilde, N., Zimmermann, A., and Petrov, I. (2014). Maintaining SOA Systems of the Future: How Can Ontological Modeling Help?

Proceedings of KEOD 2014: *The International Conference on Knowledge Engineering and Ontology Development*, October 21 – 24, 2014, Rome, Italy.

Refereed Extended Abstracts

1. **Bagui, S.**, Mondal, A. and Bagui, S. (2018). Efficient KNN algorithm using Locality Sensitive Hashing in the MapReduce Framework, *Proceedings of the ACMSE 2018 Conference*, Eastern Kentucky University, Richmond, KY, March 29-31.
2. **Bagui, S.**, Dhar, P. (2018). Mining Positive and Negative Association Rules in Hadoop's MapReduce Environment, *Proceedings of the ACMSE 2018 Conference*, Eastern Kentucky University, Richmond, KY, March 29-31.
3. **Bagui, S.**, Nandi, D., Bagui, S. (2018). A Hybrid Genetic Algorithm for Network Intrusion Detection, *Proceedings of the ACMSE 2018 Conference*, Eastern Kentucky University, Richmond, KY, March 29-31.
4. **Bagui, S.**, John, S., and Baggs, J. (2018). A Comparative Study of MapReduce and Hive Based on the Design of the Information Gain Algorithm for Analytical Workloads, *Proceedings of the ACMSE 2018 Conference*, Eastern Kentucky University, Richmond, KY, March 29-31.

Book Chapters

1. Earp, R. and **Bagui, S.** (2000). Building An Entity Relationship Diagram: A Software Engineering Approach, *Data Management Handbook*, CRC Press, Auerbach Publications, **22-10-41**, Dec., 1-16.
2. Earp, R. and **Bagui, S.** (2001). Extending Relationships in the Entity Relationship Diagram, *Data Management Handbook*, CRC Press, Auerbach Publications, **22-10-42**, May, 1-14.
3. Earp, R. and **Bagui, S.** (2002). Binary Relationships in Entity Relationships in Entity Relationship (ER) Diagrams, *Data Management Handbook*, CRC Press, Auerbach Publications, **22-10-43**, April, 1-17.
4. **Bagui, S.** and Earp, R. (2003). Ternary and Higher-Order ER Diagrams, *Data Management Handbook*, CRC Press, Auerbach Publications, **22-10-44**, June, 1-21.

5. Wilde, N., **Bagui, S.**, Coffey, J., El-Sheikh, E., Reichherzer, T., White, L., Goehring, G., Terry, C., Baskin, A. (2013). Interoperable Systems and Software Evolution: Issues and Approaches, *Digital Enterprise Design and Management 2013, Advances in Intelligent Systems and Computing*, Volume 205, 2013, chapter 10, 45-56, Springer Berlin Heidelberg, doi={10.1007/978-3-642-37317-6_5}.

Other Publications

1. Earp, R., and **Bagui, S.** (2000). Oracle's Joins, *Oracle Internals*, 2(3), 6-14.
2. Earp, R. and **Bagui, S.** (2001). Oracle's Triggers, *Oracle Internals*, 2(10), 14-20.
3. Earp, R. and **Bagui, S.** (2001). An In-depth look at Oracle's Correlated Subqueries, *Oracle Internals*, 3(4), 2-8.
4. **Saha, Sikha** (1988). Software Review of ENABLE, *Journal of Computer Based Instruction*, 15(1).
5. **Saha, Sikha**, (1988). Book Review, Files and Databases, An Introduction, *Interfaces*, 18(3).

Papers re-printed as Book Chapters

1. Earp, R., and **Bagui, S.** (2004). Oracle's Joins, *Oracle Internals: Tips, Tricks, and Techniques for DBAs*, edited by Donald K. Burleson, Auerbach Publications, Taylor and Francis Group.
2. Earp, R. and **Bagui, S.** (2004). Oracle's Triggers, *Oracle Internals: Tips, Tricks, and Techniques for DBAs*, edited by Donald K. Burleson, Auerbach Publications, Taylor and Francis Group.
3. Earp, R. and **Bagui, S.** (2004). An In-depth look at Oracle's Correlated Subqueries, *Oracle SQL Training and CBO Internals*, edited by Kimberly Floss, Rampant Press.
4. Earp, R., and **Bagui, S.** (2004). Oracle's Joins, *Oracle SQL Training and CBO Internals*, edited by Kimberly Floss, Rampant Press.
5. **Bagui, S.** (2008). An Approach to Mining Crime Patterns, *Data Warehousing and Mining: Concepts, Methodologies, Tools, and Applications*, edited by John Wang, IGI Global Publications.

6. **Bagui, S.** (2009). An Approach to Mining Crime Patterns, *Selected Readings on Database Technologies and Applications*, edited by Terry Halpin, IGI Global Publications.
7. **Bagui, S.** (2009). Mapping Generalizations and Specializations and Categories to Relational Databases, *Handbook of Research on Innovations in Database Technologies and Applications: Current and Future Trends*, edited by Viviana E. Ferragline, Jorge H. Doorn, Laura C. Rivero, Information Science Reference. ISBN-13: 9781605662428, 1-11.
8. **Bagui, S.** and Loggins, A. (2011). Automating the Generation of Joins in Large Databases and Web Services, *Web Engineered Applications for Evolving Organizations: Emerging Knowledge*, edited by Ghazi, I. Alkhatib, IGI Global Publications. ISBN: 978-1-60960-523-0.
9. **Bagui, S.**, Islam, M., and Bagui, S. (2012). An Architecture for Query Optimization Using Association Rule Mining, *Intelligence Methods and Systems Advancements for Knowledge-Based Business*, IGI Global.
10. **Bagui, S.**, and Nyugen, L. (2015). A Key Based Database Sharding Implementation for Big Data Analytics, *Advanced Research on Cloud Computing Design and Applications*, IGI Global (in press).

Workshops

1. Bilal Gonen, Xingang Fang, Eman El-Sheikh, Sikha Bagui, Norman Wilde, Semantic Traversing Documents by Using Semantic Relationships, *Workshop on Grand Challenges in Engineering and Applied Sciences*, Princeton University, Princeton, NJ, May 15-18, 2014.

Grant Reports

1. Caffrey, J., Landing, W., **Bagui, S.**, Bagui, S. (2009). *Atmospheric Deposition of Mercury or Trace Metals to the Pensacola Bay Watershed*, February 15, 2009.

Submittals/In preparation

43. **Bagui, S.**, Devulapalli, K., Coffey, J., “A Heuristic Approach for Load Balancing the FP-Growth Algorithm on MapReduce, submitted to *IEEE Transactions on Big Data*, July 28, 2017.
44. **Bagui, S.**, Devulapalli, K., Sharon, J. “MapReduce Implementation of a Mixed and Multinomial Naïve Bayes Classifier,” submitted to *Data and Knowledge Engineering*, Sept 14, 2018.

45. **Bagui, S.,** and Butler, J. “Mining Trends in Chronic Health Care Conditions in the United Stated from 2012-2015, submitted to IJHTM.

Series Editor for “Foundation for Database Design Books” for CRC press.

Books in this series:

1. Garmany, J, Walker, J., and Clark, T. (2005). *Logical Database Design Principles*, CRC Press, Auerbach Publications, ISBN: 0-8493-1853-X.
2. Chao, L. (2005). *Database Development and Management*, CRC Press, Auerbach Publications, ISBN: 0-8493-3318-0.

Editorial Board member:

- i. *International Journal of Data Analysis Techniques and Strategies (IJDATS)*.
 - ii. *World of Computer Science and Information Technology Journal (WSCIT)*.
 - iii. *Universal Journal of Computer Science and Engineering Technology (UniCSE)*.
 - iv. *Inventi Journals*, <http://www.inventi.in>
 - v. *Amity Journal of Engineering and Technology*.
 - vi. *Journal of Technologies* (<http://www.mdpi.com/journal/technologies>, ISSN 2227-7080).
 - vii. *Journal of Applied Information Science*
(<http://submission.publishingindia.com/index.php/JAIS>)
 - viii. *International Journal of Technology in Computer Science and Engineering (IJTCSE)*.
2. **Associate Editor:**
- i. *International Journal of Advanced Computer Science and Applications (IJACSA)*.

Technical Committee Member

International Conference on Intelligent Systems and Control (ISCO’2013).

REVIEWED

Articles for

IEEE Transactions for Data and Knowledge Engineering
IEEE Transactions for Parallel and Distributed Computing
IEEE/ACM Transactions on Computational Biology and Bioinformatics
IEEE Computer
Data and Knowledge Engineering
Pattern Recognition Letters
Journal of Big Data
Journal of Technologies

International Business Schools Computing Quarterly
Encyclopedia of Database Technologies and Applications
Iranian Journal of Electrical and Computer Engineering (IJECE)
Handbook for Technology Management
ACMSE
International Journal of Data Analysis Techniques and Strategies (IJDATS)
International Journal of Knowledge Engineering and Data Mining (IJKEDM)
International Journal of Intelligent Information and Database Systems (IJIIDS)
International Journal of Advanced Computer Science and Applications (IJACSA)
Consortium for Computing Sciences in Colleges (CCSC)
International Journal of Computer Engineering Research (IJCER)
Data Science Journal
Journal of Systems and Software
Intelligent Systems and Control (ISCO 2013)
8th International Conference on Knowledge Generation, Communication and Management: KGCM 2014.
Information.
2nd International Conference on Information System and Data Mining (ICISDM 2017).
3rd International Conference on Information System and Data Mining (ICISDM 2018).

Grants for

1. Kentucky Science and Engineering Foundation, 2007; April 2012.
2. Kentucky Science and Engineering Foundation. Grant title: Tools for reusing data modeling patterns: Development and evaluation, 2008.
3. NSF Database Grant for Kennesaw State University, titled: Animated Database Courseware (ADbC), 2009.
4. Florida Consortium in Cybersecurity, 2014.
5. Florida Consortium of Cybersecurity (FC2) Seed Grant Program, 2014-2015.

Books

1. *Data Structures and Algorithms in C++* (2002), by Goodrich, Tamassia, & Mount, for John Wiley & Sons.
2. *Oracle – Physical Database Design* by Don Burleson, for CRC Press.
3. *GO Series in Microsoft Office*, 2003, for Prentice Hall.
4. *Quick, Simple MicroSoft Office 2000*, by Erickson, for Prentice Hall.

HONORS & AWARDS

Research Awards

1. Recipient of **2012 Distinguished Research and Creative Activities Award**, UWF.

2. Recipient of **2007 Distinguished Research and Creative Activities Award**, UWF.

Teaching Awards

1. Recipient of **Excellence in Teaching and Advising Award**, 2012, UWF.
2. Recipient of **Excellence in Undergraduate Teaching and Advising Award**, 2006, UWF.
3. Recipient of **Teaching Incentive Program (TIP)** Award, 2002-2003, UWF.
4. Recipient of **Excellence in Undergraduate Teaching and Advising Award**, 2001-02, UWF.

Other

Nominated for *Distinguished Teaching Award* by Student Government, 2000-01, UWF.
 Recipient of Special Summer Graduate *Scholarship*, 1999, UWF.
 Recipient of Delores A. Auzenne Graduate *Fellowship*, 1999, UWF.

GRANTS RECEIVED

1. NSF funded travel grant for Sixth Annual Winter Workshop: Data Mining, Statistical Learning and Bioinformatics, UF Gainesville, January 2004, \$400.00.
2. Recipient of University Summer 2005 Research Award of \$6250, for proposal entitled, *Pattern Classification in Breast Cancer Data: A Data Mining Approach*.
3. Grant recipient of Graduate Research Assistant, from Graduate Office, UWF, Spring 2006, \$1,500.00.
4. Workshop: *Advanced SQL Server (Database) Training*, Operations IT Staff from Saufley Field, US Navy, L3 group (Summer 2005), conducted at ATC, UWF, \$5,000.
5. **Senior Key Personnel**, Electric Power Research Institute (EPRI) Grant, titled: *“Atmospheric deposition of mercury and trace metals in the Pensacola Bay Watershed Phase II”*, 2009, for \$287,020.
6. **Co-PI**, Florida’s Great North West Workforce Innovation Consortium Grant, North West Florida Computing and Engineering Training Scholarship Program (Fall 2009 – Dec 2010), \$1,000,000.
7. **Senior Key Personnel**, Electric Power Research Institute (EPRI) Grant, titled: *“Atmospheric deposition of mercury and trace metals in the Pensacola Bay Watershed Phase III”*, 2010, for \$287,020.

GRANTS SUBMITTED (Not funded)

1. PI, *Mining Breast Cancer Data*, grant submitted to Department of Defense, for approx. \$300,000 for 3 years. Submitted: 2002.
2. PI, Developing a Java Based Parser Software for Converting XML Documents to the ER and EER model and relational databases, for approx \$186.800, for 2 years. Submitted: August 2006.

3. Co-PI, STEP Grant: *Building Sustainable Futures Through STEM Program Initiative*, \$994,029, NSF 0856031, 5 years. Submitted: September 2008.
4. Co-PI, PRISM Grant: *PRISM Through Early Engagement of Introductory Level Students in Discovery and Research*, for \$960,625. NSF: 08-596 IRF, 3 years. Submitted: February 2009.
5. PI, Longitudinal Study of Multiple Lipid Indices to Predict Cardiovascular Disease, NIH Challenge Grants, RFA-OD-09-003, \$246,413, 1 year. Submitted: April 2009.
6. Senior Key Personnel for Synthesis and investigation of superconducting semiconductors and approach for a new generation of electronic components, submitted to AFOSR. Total: ~ \$1,500,000 in total for 5 years. Submitted: Summer 2009.
7. Co-PI, S-STEM Grant: Scholarships to Promote Interdisciplinary Undergraduate STEM Research, NSF Proposal Number: 1060363: \$598,785, 5yrs. Submitted: Summer 2010.
8. PI, TAACCCT, Department of Labor (DOL) Consortium grant, \$500,000, June 2014
9. Co-PI, H1b Grant, DOL Consortium grant, \$500,000, June 2014.
10. UWF PI, NSF Grant: Big Data Spokes SPOKE: SOUTH: Collaborative: The Academic and Professional Learning Initiative for Applied Data Science, \$400,000, February, 2016.
11. Senior Key Personnel. Project Title: Integrated Water Quality and Habitat-Use Monitoring to Evaluate Restoration Success in the Florida Panhandle Estuaries, \$1.46 million, Summer, 2017.
12. Co-PI, NSF Grant: IIS- BD Spokes: Small: South: Interactive Automated Data Analytics Using the Hadoop Framework – IADA, \$384,499, September 2017.
13. PI, NSF Grant: "CSS&E: D3SC: ChemVec - Context-aware representation learning algorithms to generate meaningful chemical fragment vectors and molecular vectors", \$282,876, October, 2017.
14. PI, NSF Grant: RET Site: Computer Science Research Experiences for Teachers Focused on Security of Internet of Things (IoT) and Data Analysis, \$599,190, October, 2017.

PRESENTATIONS

International Conferences

1. *A Java Based Parser Software for Converting XML Documents to the ER Model and Relational Databases*, World Congress in Computer Science, WORLDCOMP 2007, Computer Engineering, and Applied Computing, Las Vegas, NV, June, 2006.
2. *Developing a Conceptual Model for XML Schema*, World Congress in Computer Science, WORLDCOMP 2007, Computer Engineering, and Applied Computing, Las Vegas, NV, June, 2007.
3. *Optimizing Outerjoins in Large Databases using Cluster-based partitioning*, World Multiconference on Systemics, Cybenetics and Informatics (WMSCI) 2010, Orlando, FL June 29-July 2, 2010.
4. *Role of Climate and Local Emission Sources in the Wet Deposition of Mercury and Major Ions in the Pensacola Region*, 10th International Conference on Mercury as a Global Pollutant (ICMGP), Halifax, Nova Scotia, July 24-29, 2011.
5. *Temporal and Spatial Variability of Mercury, pH, and Non-Sea Salt Sulfate Fluxes Associated with Changes in Anthropogenic Emissions in the Pensacola Bay Region*, Eighth National Monitoring Conference, April 30 – May 4, 2012, Portland, Oregon.
6. *Interoperable Systems and Software Evolution: Issues and Approaches*, Digital Enterprise Design & Management (DED&M), Paris, France, February, 2013.
7. *Towards Semantic-Supported SmartLife System Architectures for Big Data Service in the Cloud*, SERVICE COMPUTATION 2013, The Fifth International Conferences on Advanced Service Computing, Valencia, Spain, May/June, 2013, <http://www.iaia.org/conferences2013>.
8. *Ontology-Based SmartLife Enterprise Services Architectures for Big Data in the Cloud*, ESOC 2013, Malaga, Spain, September 11 – 13, 2013.
9. Bilal Gonen, Xingang Fang, Eman El-Sheikh, **Sikha Bagui**, Norman Wilde, Alfred Zimmermann and Ilia Petrov, *Semantic Search to Support the Evolution of SmartLife Applications*, 9th International Joint Conference on Software Technologies, Vienna, Austria, August 29-31, 2014.
10. Alfred Zimmermann, Bilal Gonen, Rainer Schmidt, Eman El-Sheikh, **Sikha Bagui**, and Norman Wilde, *Adaptable Enterprise Architectures for Software Evolution of SmartLife Ecosystems*, The 18th IEEE International EDOC Conference (EDOC 2014) "The Enterprise Computing Conference", Ulm, Germany, September 1-5, 2014.
11. Kalaimannan, E., Mitchell, C., **Bagui, S.** and Bagui, S. (2015). *An Automated Method of Classifying and Analyzing Malware based Operating System Calls*, Annual Computer Security Applications Conference, December 2015, Los Angeles, CA.
12. **Bagui, S.**, John, S., Baggs, J., Bagui, S. (2018). *A Parallel Implementation of Information Gain Using Hive in conjunction with MapReduce for Continuous Features*, PAISI, The 22nd Pacific Asia Conference on Knowledge Discovery and Data Mining (PAKDD), Melbourne, Australia, June 3-6.

National Conferences

1. **Bagui, S.** (2004). Discovering Crime Patterns in a State Database, University of Florida *Sixth Annual Winter Workshop: Data Mining, Statistical Learning and Bioinformatics*.
2. **Bagui, S.** (2005). Rules for Migrating from Entity Relationship (ER) and Extended Entity Relationship (EER) diagrams to Object Relationship (OR) diagrams, *ACMSE*, Kennesaw, GA, March 18-20.
3. **Bagui, S.** (2009). Database Education in the New Millenium, *Consortium for Computing Sciences in Colleges (CCSC)*, Hammond, LA, April 24-25.
4. Gonen, B., Xingang F. El-Sheikh, E., **Bagui, S.**, Wilde, N. (2014). Semantic Traversing Documents by Using Semantic Relationships, *Workshop on Grand Challenges in Engineering and Applied Sciences*, Princeton University, Princeton, NJ, May 15-18.
5. **Bagui, S.**, Mondal, A. and Bagui, S. (2018). Efficient KNN algorithm using Locality Sensitive Hashing in the MapReduce Framework, *ACMSE*, Richmond, KY, March 29-31 (poster presentation).
6. **Bagui, S.**, Dhar, P. (2018). Mining Positive and Negative Association Rules in Hadoop's MapReduce Environment, *ACMSE*, Richmond, KY, March 29-31 (poster presentation).
7. **Bagui, S.**, Nandi, D., Bagui, S. (2018). A Hybrid Genetic Algorithm for Network Intrusion Detection, *ACMSE*, Richmond, KY, March 29-31 (poster presentation).
8. **Bagui, S.**, John, S., and Baggs, J. (2018). A Comparative Study of MapReduce and Hive Based on the Design of the Information Gain Algorithm for Analytical Workloads, *ACMSE*, Richmond, KY, March 29-31 (poster presentation).

Regional Conferences/Symposiums

1. “*Database Development for Atmospheric Deposition in Pensacola Bay Watershed*”, Center for Environmental Diagnostics and Bioremediation (CEDB), University of West Florida, Pensacola, FL., Nov 6th, 2008.
2. “*Some Aspects of Skew-Normal Distribution*”, Presented at Mathematics Association of America (MAA) Florida Chapter Meeting, The University of West Florida, Pensacola, FL., Nov. 21, 2008.
3. “*Designing a Relational Database for tracking and analysis of Atmospheric Deposition of Mercury and Trace Metals in the Pensacola Bay Watershed*”,

Mercury Deposition Meeting, Organized by Center for Diagnostics and Bioremediation, University of West Florida, Pensacola, FL, Jan 13-15, 2010.

4. *Database Development for Tracking and Analysis of Atmospheric Data*, Hg Measurements Meeting, University of West Florida, Pensacola, FL., February 2-3, 2011.
5. *Spatial and Temporal Trends in Atmospheric Deposition of Mercury, Trace Metals and Major Ions in the Pensacola Bay Watershed*, Hg Measurements Meeting, University of West Florida, Pensacola, FL, February 2-3, 2011.
6. *Nonrigorous Proofs of Stirling's Formula*, presented at the Florida Chapter of the MAA Meeting, The University of University of West Florida, November, 2012.

Other Presentations

1. Presented several seminars on using Enable, DBASE III Plus, and Lotus 123 to faculty at The University of Toledo in 1987.
2. "*Multimedia, Hypermedia & CD-ROM technology*", presented at Kent State University, April, 1991.
3. "*Impact of Kolb's Learning Style on the Authoring of Multimedia/Hypermedia*", presented at The Department of Computer Science, The University of West Florida, Pensacola, FL, October, 2000.
4. "*Breast Cancer Detection Using Rank Nearest Neighbor Classification Rules*", presented in Joint Statistical Meetings of American Statistical Association, Atlanta, GA, August, 2001.
5. "*Mining Association Rules for Insurance Data*", presented at The Department of Computer Science, University of West Florida, Pensacola, FL, March, 2002.
6. "*Data Mining: Discovering Association Rules for Insurance Data*," invited talk, presented at The Department of Computer Science, Florida A&M University, Tallahassee, FL, July 2002.
7. Invited Panel Discussion: *Challenges facing Information Studies/Information Technologies*, participated at Florida State University, College of Information Studies, Tallahassee, FL, July 2002.
8. Invited talk: *Database Concepts*, College of Information Technology, Georgia Southern University, Statesboro, GA, October, 2002.
9. Invited talk: *Database Interface of VB.Net*, Roger Williams University, Bristol, RI, February, 2003.

10. “*Association Rule Mining*”, presented at The Department of Computer Science, Florida A & M University, Tallahassee, FL, July 2003.

Local Symposium Presentations

1. “*An Algorithm and Code for Computing Exact Critical Values for the Kruskal-Wallis Nonparametric One-Way ANOVA*”, presented at SEASTARS 2004, April 19, 2004 (poster session).
2. “*Discovering Crime Patterns in a State Database*,” presented at SEASTARS 2004, April 19, 2004 (poster session).
3. “*An Algorithm and Code for Computing Exact Critical Values for the Friedman’s Nonparametric ANOVA*”, presented at SEASTARS 2005, April 19, 2005 (poster session).
4. “*Rules for Migrating from Entity Relationship (ER) Diagrams*,” presented at SEASTARS 2005, April 19, 2005 (poster session).
5. “*A Java Based Parser Software for Converting XML Documents to ER Diagrams and Relational Databases*,” presented at SEASTARS 2006, April 26, 2006 (poster session).
6. “*An Algorithm and Code for Computing Percentiles of Skew-Normal Distributions*”, presented at SEASTARS 2006, April 26, 2006 (poster session).
7. “*SOA and Databases*”, departmental seminar series, Computer Science Department, Sept 8, 2008.
8. *Calculating Support, Confidence and Lift in Multi-relational XML Data*, SSE Seminar Series, Dec 7, 2012.
9. **Bagui, S.**, *The Transformation of Data*, Rite of Passage Lecture, The University of West Florida, March 28, 2014.
10. Gonen, B., Fang, X., El-Sheikh, E., **Bagui, S.**, and Wilde, N. (2014). Semantic Traversing Documents by Using Semantic Relationships. 2014 Faculty Research Showcase, University of West Florida, Pensacola, FL, April 24, 2014.
11. **Bagui, S.**, Cybersecurity at UWF, presentation made to UWF’s IT Pack, October 29, 2014.
12. **Bagui, S.**, Cybersecurity, how does it work, presentation made at Open House, April 11, 2015.

SERVICE

Departmental Service, Fall 1999 – Spring 2005

1. Departmental committees:

Undergraduate Committee (1999 - 2005); Online committee (2005); Chair Search committee (Spring 2005 – Summer 2005), Lecturer Search committee (Summer 2005), Java Programming Committee (COP2253) (Fall 2004 – 2005).

2. Course Coordinator commitments:

Aug 1999 – August 2005:

Microcomputer Application Packages (CGS 2570), Multimedia Systems (CGS 3994), Web Page Design (CGS 3823), Database Systems (COP 4710), Advanced Database Systems (COP 5715), Desktop Publishing (CGS 2580), Visual Programming (CGS 3464). Developed CCRs for the above courses during this period, and was instrumental in putting Microcomputer Application Packages online for the first time.

Summer 2001 to August 2005:

Database Systems (COP4710), Advanced Database Systems (COP5715), Data Structures and Algorithms (COP3530) (Summer 2001 – April 2003)

3. ABET coordinator for review for (Fall 1999 – Fall 2001):

Database Systems (COP 4710), Data Structures and Algorithms (COP3530).

4. Programming Competitions

1. Prepared, coordinated, and evaluated UWF's AITP C++ Programming Competition, Spring 2001.

2. Prepared students for Oracle's Nation-wide competition, 2000-01.

5. Directed Independent Study students: Spring 2009 – 3; Fall 2008 – 1; Fall 2007 – 1; Spring – 2; Fall, 2005 – 1; Spring 2005 – 1; Spring 2003 – 1; Summer 2002 – 1; Fall 2001 – 1.

6. Conducted Java Boot Camp, Fall, 2005.

Departmental Service, FALL 2006 – Present

1. Coordinator, Ed.D. Program, Computer Science specialization (2007 – 2015).

2. Coordinator, Medical Information Technology Program (2007 – 2013).

3. Coordinator for CS Department's Certificate programs (2006 – present).

Certificates developed:

i. Certificate in Database Systems (2007).

ii. Certificate in Web Technologies (2007).

iii. Certificate in Cybersecurity (2014).

iv. Certificate in GeoComputing (2014).

v. GeoCyber Certificate (2015).

vi. Data Science Certificate (2015).

4. MSDNAA Coordinator (2007 – 2010).

5. Program reviews:

- i. Chair, IT Program Review, 2009-2010.
- ii. Chair, CS Undergraduate and Graduate Program Review, 2013-2014.
- iii. Chair, IT Program Review, 2016-2017.

6. Committees served on:

a. Search Committees:

- i. Search committee, Office Support Specialist position (in Computer Science), member, Fall 2006
- ii. Chair, CS Faculty Search Committee, Fall 2009, Fall 2010.
- iii. Member, CS Department Faculty Search Committee, Spring, 2012.
- iv. Chair, CS coordinator/advisor search committee, Spring, 2012.
- v. Chair, Cybersecurity Faculty Search Committee, 2013-14.
- vi. Hiring official, Cybersecurity Office Administrator Search Committee, Summer, 2014.
- vii. Hiring official, Cybersecurity Advisor Search Committee, Summer, 2014.
- viii. Hiring official, IT Techie Search Committee, Fall, 2014.
- ix. Hiring official, Battle Lab Techie Search Committee, Fall 2014.
- x. Chair, CS Faculty Search Committee, 2014-15.

b. Other committees:

- i. Junior Faculty Mentoring committee (2005 – 2006)
- ii. Departmental Web Page development committee, 2007- present
- iii. SE Curriculum development committee, member, 2007-2008.
- iv. Grand Opening Planning Committee, member, Fall 2009.
- v. Assessment Committee, member, Summer 2010 – present.
- vi. Common Pre-requisites Committee, department representative, Spring 2011 – present.
- vii. Member, CS departmental scholarship committee, 2009 - present
- viii. Member, CS departmental assessment committee, 2011-present.
- ix. Chair, CS department strategic planning committee, 2013-present.
- x. Battle lab renovation committee, 2014-2015.

- xi. Hadoop Cluster Purchase committee, 2014-2015.
- xii. Chair, CS Department Equipment committee, 2014-present.
- xiii. Member, By-Laws Committee, 2014-present.

7. Developed CCRs for:

- i. Advanced Database Systems (COP6727) – graduate database course
- ii. Data Mining (CAP4770/5771) – dual listed data mining course
- iii. Database Administration (COP4723/5775) – dual listed course
- iv. CIS major, CIS minor, IT major, IT minor
- v. IT Tracks – Networking and Telecommunications Technologies, Human Computer Interaction, Information Technology, and Digital Enterprise.
- vi. MSIT program CCR, 2015.
- vii. MSIT/Cybersecurity specialization, 2015.
- viii. MSIT/Database specialization, 2015.

8. New Courses developed:

- 1. Advanced Database Systems (COP6727)
- 2. Data Mining(CAP4770/CAP5771)
- 3. Database Administration(COP4723/COP5775)

9. Online courses developed:

- 1. Database Systems (COP4710/COP5725)
- 2. Advanced Database Systems (COP6727)
- 3. Data Mining(CAP4770/CAP5771)
- 4. Database Administration(COP4723/COP5775)
- 5. Seminar in SOA(COP5990).

10. New Specializations developed:

- 1. MSA/DBA (2007).
- 2. MS/CS/DB (2010).
- 3. BS/CS/CyberSecurity (2013).

11. New Programs developed:

- 1. MSIT

i. MSIT/Database Management (2015).

ii. MSIT/Cybersecurity (2015).

12. Student recruitment efforts

1. Articulation with Junior Colleges: March 2007, March 2008.
2. CS Department Open House: Jan 2007; Nov 2007; Feb 2009; Nov 2009; April 2010; June 13, 2011; June 16, 2011; June 20, 2011; June 23, 2011; July 14, 2011; Sept 17, 2011; Oct 15, 2011, Mar 17, 2012; Nov 2013; Nov 11, 2014; April 11, 2014;
3. Pensacola Junior College visits: March 20, 2008, April 8, 2008.
4. Holodeck presentation to Middle School teachers, April 16, 2010.
5. West Florida High School, May 2011.

13. Coordinated, prepared and administered test for student – to test out of Web Page Design Course (CGS3823), Spring 2006.

14. Outreach Activities – visited: Alpha Data Corporation, FW Beach, NAS Pensacola, Bullet Technologies, General Dynamics, Pall Corporation, Cogon, App River, Avalex Technologies, Media Com, Coco, Beyond.com, Booz Allen Hamilton.

15. Participated in SSE Grand Opening Events, Feb 3-5, 2010.

16. Directed independent study students: (2009-2010): 12; supervised one honors thesis; coordinated 6 internships; and served on one master's committee.

17. Advising:

1. 2009-2010: 55 undergraduate advisees and 42 graduate advisees.
2. 2010 – 2011: 60 undergraduate advisees and 45 graduate advisees
3. 2011 – 2012: 55 undergraduate advisees and 48 graduate advisees

18. Chair, Ed.D. committee, 2011 – 2014.

19. International Collaborations:

1. Working with China, 2013.
2. Working with Faith University in Turkey, 2014-2015
3. Working with Reutlingen University in Germany, 2011 – present.

20. Meetings:

1. Organized and hosted Florida Consortium on Cybersecurity (FC2) at UWF's Department of Computer Science, Sept 16, 2014.

2. Committee member, STARTUP weekend, 2013-present.
3. Committee member, Cyberthon, 2015.

21. Articulation Agreements

1. Articulation with Pensacola State College

22. Non-Disclosure Agreements

1. General Dynamics IT (GDIT), February, 2015.
2. Los Alamos Technical Associates, Inc. (LATA), February, 2015.

23. Accreditations and Designations

1. Professional Master's Designation (PSM) for Master of Science in Administration, with a specialization in Cybersecurity.
2. CAE, 2015.

COLLEGE-WIDE SERVICE

1. Elections Committee (At Large), member, 2006 -2008, 2008-2010, 2011-2013, 2013-2015.
2. Academic Standards Committee, member, 2006-2009.
3. CAS Council, member, 2007-2010.
 - a. Chair, CAS Graduate Program Committee (CAS Council ad hoc committee), fall 2010.
4. Search Committee, Art Department, member, 2008.
5. Search Committee, CEDB, member, 2008.
6. Search Committee, Physics, member, 2008.
7. Tenure and promotion mentoring committee, Art Department, member, 2008-09, 2012-13.
8. Tenure and promotion mentoring committee, Biology, 2012-2013.
9. ATC Search Committee, member, Spring 2011.
10. Graduate Council, Fall 2018 – 2021.

UNIVERSITY-WIDE SERVICE

1. Excellence in Undergraduate Teaching and Advising Committee, member, 2002-2003.
2. Academic Technology Advisory Council (ATAC), member, Fall 2004 – 2006.

3. Faculty Merit Scholarship Program Review Committee, member, 2005 – 2006.
4. Faculty Phone-A-Thon, Admissions Office, UWF, student recruitment, Fall and Spring, 2006.
5. Excellence in Undergraduate Teaching and Advising Committee, member, 2007.
6. Co-chair, Faculty and Staff Campaign, UWF, 2007 – 2009; member, 2010.
7. Participated in UWF's Fund Raising Campaign – Great Futures Campaign, 2007.
8. Computer Science Video Clips for Office of Admissions (for recruitment), Summer 2009.
9. Faculty Video Profile for SSE, Summer 2009.
10. University Faculty Personnel Committee, 2010-2013.
11. Member of STRIDE task force (part of ADVANCE – NSF grant), 2012 – 2015
12. Member of ADVANCE (part of NSF grant), 2012-2015.
13. Member of Chair's Handbook Composition Committee, 2012-2013.

COMMUNITY SERVICE

1. Judge in Math/Computer Science Judge for 49th Annual West Panhandle Regional Science and Engineering Fair, February, 2004.
2. Lead judge in Math/Computer Science Judge for 50th Annual West Panhandle Regional Science and Engineering Fair, February, 2005.
3. Served for *Tsunami* fund raising event, January, 2005.

PROFESSIONAL SERVICE

1. Guided student in creating database for Gulf Coast Kids Club, Fall 2005.
 1. Developed Alumni database for Department of Computer Science, UWF, (Fall 2006-Spring 2007).
 2. Serving on Oracle Customer Advisory Panel, 2013 – 16.
 3. On Advisory Council, Florida Center for Cybersecurity (FC2), 2014-2016.
 4. Represent Department of Computer Science at Pensacola Chamber of Commerce, 2013-2016.

Conferences Chaired/Co-chaired

5. **Co-chaired** session at *World Multiconference on Systemics, Cybenetics and Informatics* (WMSCI) 2010, Orlando, FL June 29-July 2, 2010.
6. **Co-chaired** session at *PAISI, The 22nd Pacific Asia Conference on Knowledge Discovery and Data Mining (PAKDD)*, Melbourne, Australia, June 3-6.

Conferences Committees

1. Serving on *International Conference on Information Systems and Data Mining (ICISDM)* Committee, 2017-2018.

PROFESSIONAL DEVELOPMENT

1. Attended UWF's Mini-Conference on Best Practices for Active Learning and Student Engagement (March, 2007).
2. CUTLA Workshop on Writing and Evaluating Student Learning Outcomes, May 16, 2007.
3. UWF 2007 Mini-Conference on Best Practices for Face-to-Face and Online Learning: Promoting Active Learning and Student Engagement, UWF, Nov 8, 2007.
4. Completed **LEAD**, UWF's Leadership Training Program, 2007-08.
5. Studio-e – Training for Online Teaching, Fall 2007-08.
6. Attended 2011 ABET Symposium, April 14-16, 2011.
7. Attended Howie-in-the-Hills, September, 2012.
8. Attended SPOL – Strategic Planning Online Workshop, Oct 2013.
9. Attended workshop on Discrimination and Harassment for Supervisors, 10/1/2013.
10. Attended STEM Retention Workshop, 2/28/2014.
11. Attended UWF's Office of General Counsel's, "Identity Theft: Protecting Personal Information," Nov, 21, 2014.
12. Attended Diversity Recruitment, Hiring and Retention, Department Chair Workshop, Jan 28th, 2015.

PROFESSIONAL MEMBERSHIPS

Member of ACM 2004-05; 2010 – 2012; 2018 – present.

Member of UWF Charter of Upsilon Pi Epsilon, an International Honor Society for Computing and Information Disciplines (2006 – present).

STUDENTS GUIDED

Graduate Project Advisor

Dustin Mink, 2006-2007, Datamining; Gerald Rush, Bioinformatics with BLAST, 2008-2009; Paul Brown, AERO Project, NAS Pensacola, 2008-2009; Sandeep Ramani, Genetic Algorithm, 2007-2008; Adam Loggins, 2008-2009; Jiri Just, 2008-2009; Brandon Youngblood, Optimizing Queries, 2009 – 2010; Mohammad Islam, Optimizing Queries, 2009-2010; Cecil Musgrove, Optimizing Queries, 2009-2010; Duane Christi, Data Warehousing for Escambia County’s School Board System, 2009-2010; James Teichart, 2011-2011; Robert Lyons, Cloud computing, 2012; Sweta Ghosh, 2011-2012; Anton Parker, 2012-2013; Loi Nguyen, Database Sharding, 2012-2014; Sean Spratlin, Mining XML Data, 2011-2013; Mariko Young, Data Mining, 2011-2012; James Bouressa, RDF, 2013-2014; Robert Jamie White, Phishing, 2014; Mason Evans, SQL Injection, 2014; Xingang Fang, Chem-informatics, 2014-2015; Joseph Sheehan, 2015-2016, Malware Analysis; Sharon Kirthana John, 2017-2018; Debarghya Nandi, 2017-2018; Probal Chandra Dhar, 2017-2018; Arup Kumar Mondal, 2017-2018; John Baggs, 2017-2018; John Compo, 2017-2018.

Thesis Committees

Carlos Perez, 2009-2010

Dissertation Committees (Chair)

Evorell Fridge, 2011-2014; Sean Spratlin, 2014 – present.

Computer Science Department Honors Project Advisor

Tabatha DeJesus, Fall 2013

Directed Studies and Undergraduate Research

Damien Walker, Developing JAVA based Parser Software, 2005; Utkarsh Shah, Optimizing Queries, Summer 2008; Nicholas Fox, Optimizing Queries, Summer 2008; Clark Mitchell, Malware Analysis - Datamining, Summer 2015; Renan Lordello, SQL Injection Attacks, Summer 2015; Keenal Shah, 2018; Bhaynesh Mishra, 2018.

External Dissertation Committee:

Angie Cox, 2015, Trident University; Dustin Mink, University of South Alabama.

PostDocs:

Xingang Fang (2015-2016)

Curriculum Vitae

Jia Liu

Personal:

Current Position	Associate professor
Office Address	Department of Mathematics and Statistics
Phone:	850 474 3202
Email Address:	jliu@uwf.edu
Personal Website	http://www.uwf.edu/jliu

Education:

- Ph.D. Mathematics, Emory University, 2006.
- M.S. Mathematics, Central China Normal University, 2001.
- B.S. Mathematics, Central China Normal University, 1998, *with highest honor*.

Research Interests: Numerical Linear Algebra, Sparse Matrix Computations, Iterative Methods for Systems of Linear Equations, Preconditioning Techniques, Optimization, Complex networks, Machine Learning.

Publications:

- 1.J. Liu, *A priori estimate for nonlinear elliptic boundary value problem without divergence form*, J. Central China Normal Univ. Natur. Sci. 35(2001), no. 3, 267-269.
- 2.M. Benzi and J. Liu, *An efficient solver for the incompressible Navier-Stokes equations in rotation form*, SIAM J. Scientific Computing, 29 (2007), pp. 1959-1981. (*this work was supported by NSF grants:DMS-02075999 and DMS-0511336*)
- 3.M. Benzi and J. Liu, *Block preconditioning for saddle point systems with indefinite (1,1) block*, International Journal of Computer Mathematics, 84 (2007), pp. 1117-1129. Special issue on "Fast and Preconditioned Iterative Methods for Linear and Nonlinear Systems" (K. Chen, editor).
- 4.J. Liu, *Optimal Boundary Control of the Incompressible Fluid Problems in Rotation form*, Journal of Mathematics and Statistics 6(2): pp. 174-182, 2010
- 5.J. Liu and Z. A. Wang, *Classical solutions and steady states of an attraction-repulsion chemotaxis in one dimension*, Journal of Biological Dynamics, Online. doi:10.1080/17513758.2011.571722, 2011
- 6.J. Liu, *A comparative study of the block preconditioners of the incompressible fluid problems*, Journal of Mathematics and Statistics; 2011, Vol. 7 Issue 4, p255.

- 7.J. Liu , *An alternative Hermitian and Skew-Hermitian preconditioner for the incompressible Navier-Stokes problems in rotation form*, Special Issue on Preconditioning Techniques for Sparse Linear Systems, Journal of Applied Mathematics, Volume 2012 (2012), Article ID 307939, 12 pages. doi:10.1155/2012/307939J. Liu, L. Wu, *A fast iterative methods for unsteady incompressible flows*, ICCIS, 2013, 2013 Fifth International Conference on Computational and Information Sciences (ICCIS), 2013 Fifth International Conference on Computational and Information Sciences (ICCIS) 2013, pp. 910-913, doi:10.1109/ICCIS.2013.244.
- 8.J. Liu, L. Wu and X. Fang, *Using Python to Solve the Navier-Stokes Equations-Applications in the Preconditioned Iterative Methods*, volume 7, Journal of Scientific research and report, 2015, DOI : 10.9734/JSRR/2015/17346.
- 9.L. Wu, S. Wei, J. Liu and Y. Li, *Discovering Geometric and Topological Properties of Ellipsoids by Curvatures*, British Journal of Mathematics and Computer Science, volume 8, 2015. DOI : 10.9734/BJMCS/2015/17178
10. L. Wu, J. Liu and Y. Li, *Exploration of Calculus Teaching and Calculus Assessment through Artwork*, International Journal of Applied Research, 2015; 1(8): 731-135.
11. J. Liu, , *An efficient iterative solver for different incompressible flows*International Journal of Development Research , Vol 06, Issue 06, pp 8073-8076, June, 2016. (IF: 4.753)
12. L. Wu, J. Liu and Y. Li, *Discovering Liouville-type Problems for p -Energy Minimizing Maps in Closed Half-Ellipsoids by Calculus Variation Method*, World Academy of Science, Engineering and Technology International Journal of Mathematical, Computational, Physical, Electrical, and Computer Engineering, vol 10, no 10, 2016, pp 496-502.
13. J. Uvah, J. Liu and L. Wu *A Robust Preconditioned Iterative Method for the Navier-Stokes Equations with High Reynolds Numbers* , Applied and Computational Mathematics 2017; 6(4): 202-207 doi: 10.11648/j.acm.20170604.18
14. Wu, L. , Li, Y. , Liu, J. *Applying p -Balanced Energy Technique to Solve Liouville-Type Problems in Calculus*, World Academy of Science, Engineering and Technology, International Science Index 138, International Journal of Mathematical, Computational, Physical, Electrical and Computer Engineering, 12(6), 90 - 95. 2018
15. F. Hu, M. Wang, Y. Zhu* and J. Liu. *A Time Simulated Annealing-Back Propagation Algorithm and Its Application in Disease Prediction*, submitted to Journal of Applied Physics, current under the review.
16. F. Hu, Y. Zhu*, J. Liu and J. Jia *A modified spectral Clustering Algorithm for Detecting Communities in Complex Networks*, ready to submit.

Research Presentations and Activities:

- Invited talk: *Numerical solutions for large sparse matrices with the application of Python*, Central China Normal University, Wuhan, China, June 2017.
- Contributed talk: *Numerical solutions for turbulent channel flow with high Reynolds number*, 2nd symposium on international mathematics and computational science, Suzhou, China, 2017
- Contributed talk: *Using Python to solve Partial Differential Equations* The 2014 International Conference on Tensors and Matrices and their Applications, December, 2014, Suzhou, China.
- Invited talk: *the application of Python in solving Partial Differential Equations* International Conference on Partial Differential Equations and Variational Methods, May, 2014, Wuhan, China.
- Invited talk: *Linear algebra and Google*, UWF ADVANCE Scholar March Luncheon
- Contributed talk: *An Fast iterative method for Saddle point systems*, AMS joint national meeting, January 2012.
- Student Panel discussion: *How to be successful in Mathematics*, March 2011.
- Invited Panel discussion: STEM Symposium for Women, April 2011.
- Contributed talk: *An alternative Hermitian and Skew-Hermitian splitting preconditioner for the unsteady Oseen problem*, International Conference on Scientific Computation and Differential Equations. July, 2011.
- Invited one-hour talk: *Preconditioned techniques for large sparse linear systems*, Central China Normal University, Wuhan, China, June, 2010.
- Contributed talk: *Preconditioned techniques for Saddle Point Systems in rotation form*, AMS national meeting, San Francisco, January, 2010.
- Invited one-hour talk: *Preconditioned techniques for Saddle Point Systems*, International workshop of Linear Algebra in Control, Fudan University, Shanghai, China, July, 2007.
- Colloquium: *Preconditioned techniques for the Navier-Stokes equations*, Department of Mathematics, University of West Florida, February 16 2007.
- Contributed talk: *Preconditioned techniques for Saddle Point Systems with indefinite (1,1) block*, Hawaii international conference on Mathematics, statistics, and related fields, Honolulu, Hawaii, January, 2007.
- Contributed talk: *Preconditioned techniques for the Navier-Stokes problems in rotation form*, Ninth Copper Mountain Conference on Iterative Methods, Copper Mountain, CO, April, 2006.

Professional Services

- AIMS Mathematics, Editor board.
- Journal of Applied Mathematics, Editor board.

- International Journal of Scientific Engineering and Science, Editor board.

Service Activities:

- Graduate Council, UWF
- College Personnel Committee
- Resource Allocation Committee, Chair.
- Graduate Committee Chair, Department of Mathematics and Statistics.
- Search committee chair for multiple positions across the campus.
- International Faculty Discussion Panel.
- Open House events for perspective students
- Invited Speaker at McArthur Elementary School.
- American Mathematics Competitions 2007-present.
- Mathematics Tournament at Milton High School, 2007.
- Florida-China Linkage Institute Festival on the green.
- Invited Judge at Pensacola High School Mathematics competition.
- MAA Florida Local Chapter Meeting Committee, 2006-2010. Committee chair, 2010. *http :
//www.uwf.edu/mathstat/MAA/*
- CAS Resource Allocation Committee, Chair
- General Studies Committee
- CAS Council
- SEA STAR events.
- Student Research Symposium 2011.
- UWF Women in STEM.
- Employee Benefits Committee, 2013.
- Math/Stat Colloquium Committee, Chair
http : //www.uwf.edu/mathstat/colloquia/

Appendix E

University of West Florida Graduate Admissions and Graduation Requirements

ADMISSION AND GRADUATION REQUIREMENTS

<http://catalog.uwf.edu/graduate/academicpolicies/graduation/>

GENERAL INFORMATION

The Graduate School administers the application, admission, and readmission process for all degree-seeking and non-degree seeking graduate students. It also assists prospective graduate students in obtaining information about UWF.

General Policies

The University of West Florida encourages applications for admission from qualified students regardless of gender, culture, religion, ethnic background, age, marital status, or disability. Students with documented visual impairments, hearing impairments, motor impairments, or specific learning disabilities may petition for substitution of admission requirements provided such substitution does not significantly alter the nature of the program for which admission is being sought. For more information about the University's admission requirement substitution policy contact the Graduate School.

Admission of students to the University of West Florida is within the jurisdiction of the University, but subject to the minimum standards adopted by the UWF Board of Trustees and the Florida Board of Governors.

Conditions of Admission

The Graduate School will notify the applicants of the admission decision. Admission to the University is often contingent upon the subsequent receipt of satisfactory and official college or university transcripts and verification of baccalaureate degrees. Failure to submit such documents may result in the cancellation of admission. Refer to [Provisional Admission](#) for more information.

Ownership of Submitted Documents

All credentials and documents submitted become the property of the University of West Florida. The originals or copies of the originals will not be returned to the applicant or forwarded to another institution, agency, or person.

Fraudulent Records

If it is found that an applicant has made a false or fraudulent statement or a deliberate omission on the application for admission, the residency statement, or any other accompanying documents or statements, the applicant may be denied admission. If the student is already enrolled when the fraud is discovered, the case will be adjudicated using the procedures specified for violations of the UWF Student Conduct System as contained in the [Student Handbook](#).

Applicant Conduct

The University shall evaluate an applicant's previous conduct to determine whether offering the applicant admission is in the best interest of the University. Applicants with a record of previous misconduct at an educational institution or criminal conduct will be evaluated during the admission process in accordance with [UWF/REG 3.003](#).

Request for Admission for a Later Semester

Applicants are admitted to the University only for the semester for which they apply. Students who do not enroll in the semester for which they have been admitted and want consideration for a different semester must reapply for admission and pay another application processing fee. Applicants will be considered for admission under the policies in effect at that time. Admission is not automatic. If an applicant has attended, or is currently attending, another collegiate institution since the submission of the previous application, the applicant must indicate the institution on the new application and provide an official transcript of all work attempted.

Admission Documents Required

Applicants for graduate admission must provide the Graduate School with the following documents:

Application for Admission

Applicants must apply for [graduate level admission online](#). The application for admission and a non-refundable, non-deferrable \$30 processing fee payable to the University of West Florida, should be submitted six to nine months prior to the semester for which admission is requested. It is the policy of the University not to defer or waive the application for admission and the application processing fee. The application processing fee must be in U.S. currency and drawn from a U.S. bank. There is an option to pay via credit card when the web application is submitted.

College Transcripts

Applicants must submit one official transcript from each college and university attended to the Graduate School. Applicants who received their undergraduate degree from UWF do not need to provide UWF transcripts. Transcripts are considered official when they are sent from a college or university directly to the Graduate School and bear an official seal and signature. Transcripts bearing the statement "Issued to Student," faxed transcripts, or transcripts submitted by the applicant are not considered official. Original documents, or signed officially certified photocopies of original documents, may be submitted by the applicant only when institutions outside the U.S. will not send academic records to other institutions. The verifying signature should preferably be that of an officer of the institution attended. All academic records that are not in English must be accompanied by certified English translations.

Test Scores

Official test results from a nationally standardized graduate admission test are required for all applicants unless otherwise specified by the graduate program to which the applicant is applying.

Applicants should contact the graduate department for which he/she applied to inquire as to which test is acceptable for that program or if it may be waived. The University of West Florida accepts the Graduate Record Examination (GRE), the Miller Analogies Test (MAT), and the Graduate Management Admissions Test (GMAT). For the majority of departments, it is recommended that the graduate admission test be taken no later than April for the fall semester, August for the spring semester, or January for the summer semester. Applicants should contact the specific department for departmental deadlines for admission tests. Applicants to the Ed.D. program should take the GRE, MAT, or GMAT one year prior to desired admission. The test scores are considered official only when they are sent directly to the Graduate School from the testing agency. Examinee copies are not considered official. The GRE, GMAT, and MAT are offered several times a year at numerous testing centers in the U.S. and abroad. Advanced registration is required. Registration forms, as well as detailed information on the availability and character of the examinations, may be obtained from the UWF Testing Center.

Departmental Requirements

Some departments have additional admission requirements such as auditions, portfolios, goal statements, letters of recommendation, departmental applications, writing samples, personal interviews, and diagnostic testing. Applicants should contact the department directly regarding any departmental admission requirements.

Deadlines for Applications and Supporting Documents

The final deadlines for applications and supporting documents for graduate applicants are: Because some departments have earlier deadlines, applicants should contact the specific academic departments for departmental deadlines. It is in an applicant's best interest to apply early. Files completed after the published deadlines may not be processed in time for the applicant to be considered for enrollment in the desired semester.

Application for Graduation

Applications for Graduation are submitted for the term in which the student is completing their degree requirements. All applications must be submitted during the application period. Specific dates are noted in the [Academic Calendar](#). Students who miss the deadline should contact their academic department to determine eligibility and to request a late submission. Students submitting a late application risk not being included in the commencement program important graduation communication.

Retroactive graduation to a prior semester will not be approved.

Master's and Specialist Degrees

Students fulfilling requirements for a UWF master's or specialist degree must follow the instructions for [Applying for Graduation](#) and also the [Graduation Guide](#).

GRADUATION PROCESS

Degree Requirements

All degree requirements must be complete by the last day of the semester for which the graduation application is submitted. Students whose Graduation Application is denied for any reason or do not meet the requirements for graduation must submit a new application for the semester in which the requirements are met.

Good Standing Status

A student must be in good standing to receive a UWF degree. Accordingly, any student who is subject to suspension or probation for scholastic or disciplinary reasons will not graduate until the conditions of suspension or probation have been satisfied.

Appendix F

National/International Organizations Hiring Data Scientists in Northwest

Florida

Business Intelligence Data Analyst

Capstone Corporation - Pensacola, FL

Apply Now

♥ Save this job

Capstone Corporation

54 reviews

Read what people are saying about working here.



Capstone is seeking an Analyst II to support the Navy's Manpower Personnel Training Education Enterprise (MPTE) Technical Services Support (TSS) contract.

- Performs initial screening and processing of all application requests, reviews and ensures accuracy of account applications, tracks account status, notifies users when accounts are created, disabled or require updating, and maintains statistics on account status.
- Communicates to the Project Director on all requests for assistance regarding significant issues.
- Maintains a database for tracking of all requests for assistance.
- Provides assistance in building queries, interpretation of data, and identification of data required to support functional requirements.
- Works with functional representatives to document functional requirements for expansion of the systems to meet evolving needs of users.
- Supports the definition and documentation of new requirements.
- Provides ad hoc reports in support of FLT MPS analysis and customer requests for special reports.
- Designs/drafts new reports to support customer requirements for inclusion into existing applications.
- Conducts a monthly review of all ad hoc reports generated in support of customers and the analysis conducted to identify possible applicability to other users.
- Forwards all requests for on-site training outside San Diego, Norfolk or Pensacola to the NT MPS Project Director.
- Develops Student Handouts that summarize the training sessions, except those conducted on-site in Pensacola and training conducted by Analysts shall be conducted remotely using web conferencing/meeting software.
- Assists customers in entering completions records for various courses of instruction.

Minimum education and experience:

- Bachelor's degree in information technology, computer science, mathematics, statistics, business, engineering, or physical science.
- Six (6) years of Data Analysis, Statistical Analysis, Problem Solving, Content Management, Software and Network Programming experience.

Minimum qualifications:

- Candidate must have data analysis experience for technical system performance reporting, for service quality reporting, service consumption reporting, or some combination of each.
- Candidate professional experience must include solicitation and refinement of information reporting requirements, communication of data gaps and gap impacts, collaboration with data owners for access to data sources.

Minimum clearance:

- DoD Secret clearance.

Job Type: Full-time

Benefits offered:

- Paid time off
- Parental leave
- Health insurance
- Dental insurance
- Other types of insurance
- Healthcare spending or reimbursement accounts such as HSAs or FSAs
- Retirement benefits or accounts
- Education assistance or tuition reimbursement
- Child Care benefits
- Commuting/travel assistance

4 days ago - [report job](#)

If you require alternative methods of application or screening, you must approach the employer directly to request this as Indeed is not responsible for the employer's application process.

Other jobs you may like

Data Analyst 122650

University of West Florida Pensacola, FL

University of West Florida - 10 days ago



IT Business Analyst

Capstone Corporation Pensacola, FL

Easily apply

4 days ago



Help Desk Analyst 122350

University of West Florida Pensacola, FL

University of West Florida - 5 days ago



EMR TRAINING & DEVELOPMENT II

Lakeview Center Inc. Pensacola, FL 32501

Lakeview Center Inc. - 4 days ago



Manufacturing IT & Control Systems Analyst Job

Armstrong World Industries Pensacola, FL

Armstrong - 7 days ago



See more recommended jobs

25 new >

Business Intelligence Analyst jobs in Pensacola, FL

Jobs at Capstone Corporation in Pensacola, FL

IT Business Analyst

Capstone Corporation - Pensacola, FL

Apply Now

♡ Save this job

Capstone Corporation

54 reviews

Read what people are saying about working here.



Capstone is seeking an IT Business Analyst to support the Navy's MPTE TSS located in Pensacola, FL. This analyst position supports the development and maintenance of Navy training systems. The analyst facilitates communication and understanding between the business and project team, and is responsible for evaluating business needs, defining use cases/user stories, and identifying the appropriate solutions. The ideal candidate for this position will have experience eliciting software requirements from stakeholders, analyzing and documenting those requirements with either Waterfall or Agile documentation, and translating the requirements into a format understandable to the software developers. Other responsibilities will include developing and executing test scripts or scenarios; facilitating user acceptance testing; creating and tracking system projects; addressing system incidents and documenting solutions; responding to informational requests; and providing other related support to our Navy customer with a sense of urgency and due professional care.

- Collaborates with the team during Sprint Planning and participate in the planning to accomplish items from backlog.
- Participates in daily stand-up meetings, planning meetings, reviews, and retrospectives.
- Participates in backlog management and maintain an emphasis on user experience and specifications.
- Develops clear, specific, and testable acceptance criteria, and create and execute test scenarios and scripts.
- Provides Tier 2 trouble-shooting support on assigned applications for the Naval Education and Training Command Information Technology department.
- Utilizes strong written and verbal communication skills to work well with teams as well as independently.
- Analyzes and evaluates Commercial Off The Shelf (COTS) products to assess the feasibility and usability of the product to best support operations that are related to the project.
- Develops and documents a gap analysis, details the functional capabilities satisfied by the COTS, and identifies strengths and weaknesses.
- Utilizes current SQL-based products and tools for extraction and reporting of information to support business requirements analysis and development. Products may include TOAD, PL/SQL Developer, or Oracle Business Intelligence.
- Demonstrates experience with software testing methodologies.
- Demonstrates proficiency using Microsoft office suite 2010/2016 and related tools.
- Utilizes strong problem solving, critical thinking, and analytical skills.

Minimum education and experience:

- Bachelor's degree in Information Technology, Management Information Systems, Computer Science, Mathematics, Statistics, Business, Engineering, or Physical Science.
- 3 years of data analysis, statistical analysis, problem solving, and business process improvement experience.

Minimum qualifications:

- Data analysis, statistical analysis, problem solving, and business process improvement experience.
- Advanced skills in Microsoft Office..

Certification:

- Must obtain IAT Level II certification (CCNA Security or SA+ or GICSP or GSEC or Security+CE or SSCP) within 6 months of hire date.

Minimum clearance:

- Secret.

Job Type: Full-time

Benefits offered:

- Paid time off
- Parental leave
- Dental insurance
- Health insurance
- Healthcare spending or reimbursement accounts such as HSAs or FSAs
- Other types of insurance
- Retirement benefits or accounts
- Education assistance or tuition reimbursement
- Child Care benefits
- Commuting/travel assistance

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If you require alternative methods of application or screening, you must approach the employer directly to request this as Indeed is not responsible for the employer's application process.

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Business Intelligence Data Analyst

Capstone Corporation Pensacola, FL

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IT Business Analyst

Capstone Corporation Pensacola, FL

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University of West Florida Pensacola, FL

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Business/Systems Analyst

CACI - Pensacola, FL 32508

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Job Description

What You'll Get to Do:

Conducts analysis on work procedures and recommends changes to improve the effectiveness of the organization's processes/procedures. Able to perform studies on ways to increase efficiency. Collects and analyzes quantitative and qualitative data including financial and cost data, builds process models, develops solutions or alternative practices, collects and organizes information from a variety of sources, and recommends process, procedures, or organizational changes.

- Acts as liaison between end-user communities, stakeholders, and service providers within an enterprise
- Interviews personnel from functional user area under study to learn general purpose of systems and information requirements of positions involved in the data flow
- Analyzes business and user needs, documents requirements, and revises existing system logic difficulties as necessary.

More About the Role:

- Assesses information and sources to ensure data collected is relevant to the core issue.
- Identifies issues or gaps and devises appropriate next steps.
- Practical understanding of statistics.
- Familiarity with a variety of the field's concepts, practices, and procedures.
- Relies on experience and judgment to plan and accomplish goals.
- Prepares reports and/or presentations.
- A high degree of creativity and latitude is expected.

You'll Bring These Qualifications:

- Typically has a University Degree or equivalent experience and minimum 3 years of related work experience.
- Requires active SECRET Clearance

These Qualifications Would be Nice to Have:

- Knowledge of Navy Personnel data and business rules.
- Ability to work as a team member in a diverse group; ability to deal effectively with both Government and contracted workforce members.

What We Can Offer You:

- We've been named The Top Place to Work by the Commercial Appeal.
- Our employees value the flexibility at CACI that allows them to balance quality work and their personal lives.
- We offer competitive benefits and learning and development opportunities.
- We are mission-oriented and ever vigilant in aligning our solutions with the nation’s highest priorities.
- For over 55 years, the principles of CACI's unique, character-based culture have been the driving force behind our success.

Job Location

US-Pensacola-FL-PENSACOLA-EGLIN AFB

CACI employs a diverse range of talent to create an environment that fuels innovation and fosters continuous improvement and success. At CACI, you will have the opportunity to make an immediate impact by providing information solutions and services in support of national security missions and government transformation for Intelligence, Defense, and Federal Civilian customers. CACI is proud to provide dynamic careers for employees worldwide. CACI is an Equal Opportunity Employer - Females/Minorities/Protected Veterans/Individuals with Disabilities.

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Business Systems Analyst salaries in Pensacola, FL

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 Niceville, FL

 job title, keywords

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Data Scientist in Niceville, Florida

Data Scientist

Description

ABOUT THIS POSITION

- The successful candidate will be part of the KBRwyle team supporting the Test Resource Management Center's (TRMC) Big Data (BD) and Knowledge Management (KM) Team working on prototype BD and KM systems for DoD testing Ranges and various acquisition programs.
- The successful candidate will support our customers with insights gained from analyzing DoD Test & Evaluation data.
- The ideal candidate is adept at using large data sets to find opportunities for process/workflow optimization and using models to test the effectiveness of different courses of action.
- They must have strong experience using a variety of data mining/data analysis methods, using a variety of data tools, building and implementing models, using/creating algorithms and creating/running scripts and reports.
- They must have a proven ability to drive decisions with their data-based insights.
- They must be comfortable working with a wide range of stakeholders and functional teams.
- The right candidate will have a passion for discovering solutions hidden in large data sets and working with stakeholders to improve business outcomes.
- The successful candidate will be expected to utilize BD and KM tools and follow processes that ensure high quality products are delivered.

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KBRwyle



Current Search Criteria

Data Scientist

Niceville

Florida

Clear All

- The successful candidate will have extensive technical expertise in data science, academic or industry experience, and have excellent communication skills. As a Data Scientist, you will be part of a technical team responsible for evaluating customer requirements pertaining to complex big data analytic challenges.
- You will meet frequently with DoD analysts to discuss needs and effectively communicate solutions at both a programmatic and technical level.
- This team will provide analytical services and solutions to various DoD testing Ranges and acquisition programs.
- You will be responsible for developing and implementing solutions using machine learning tools, statistical data analytics, and providing input on the design and development of analytical products and reports.
- You will work in design, maintenance, completion, and end user training for a highly visible data analytic project, at multiple DoD ranges, creating efficient solutions with the goal of ultimately improving data analytics within DoD Test and Evaluation.
- Data Scientists of all seniority levels are encouraged to apply and will be considered.
- This position will require travel of at least 1 week a month to support end users located at various DoD Ranges in the CONUS.
- Come join the BD and KM team on the ground floor and be a part of the team responsible for revolutionizing how data analysis is performed across the entire Department of Defense!

Qualifications

REQUIRED QUALIFICATIONS:

- This position requires a bachelor's degree in Computer Science, Data Science, Statistics or related, technical field, and 7-10 years of experience. Advanced degrees may be substituted for years of experience on a year-for-year basis. Data Scientists of all seniority levels are encouraged to apply and will be considered.
- Previous experience must include five (5) years of hands on experience in big data analytics or machine learning.
- Strong command of principles of: statistical analysis, statistical analysis, data mining algorithms, mathematical segmentation, machine learning, and modeling.
- Proven analytical skills and experience in handling large volume of data.
- Experience in dealing with imperfections in data.
- Experience in implementing Data Visualization solutions.

Security clearance:

Active or Current Secret Clearance required - Top Secret Clearance preferred.

Knowledge / Skills / Abilities:

- Well-rounded skills in data science: computer programming (e.g., Python, R), data structures (e.g., SQL, Hadoop), statistics (e.g., Bayesian modelling), data visualization (e.g., Tableau), modeling and simulation are required.
- Proficiency using Python or R programming language

- One-year experience developing applications using Big Data databases (e.g., Accumulo, HBase, MongoDB, Cassandra)
 - Experience with some of the following: Hadoop, Cloudera, Hortonworks, Apache Storm, Apache Spark, HBase, YARN, map-reduce, big-data analytics, semantic-web (RDF, OWL), and graph-databases.
 - Experience with working in teams in the data science industry is preferred.
 - The Data Scientist must have the ability to work closely with other scientists or software engineers to develop the best technical design and approach for new analytical products.
 - Ability to problem solve, debug, and troubleshoot while under pressure and time constraints is required.
 - Expertise in statistical data analytics, machine learning, open source and proprietary tools and applications. Must have an excellent knowledge of advanced methods, and experience in applying those methods to solve problems.
 - Ability to communicate effectively about technical topics to both experts and non-experts at both the management and technical level is required.
 - Excellent interpersonal skills, oral and written communication skills, and strong personal motivation are preferred.
 - Knowledge of software design patterns, and Agile Development methodologies is a plus.
 - Ability to work independently and provide appropriate recommendations for optimal analysis and development.
 - Excellent written and verbal communications skills are required, as the Data Scientist will be in frequent contact with the project technical lead, be taking direction from various government leads, and will frequently be interacting with end users to gather requirements and implement solutions while away from other team members.
- ADDITIONAL QUALIFICATIONS**The preferred candidate will have experience working in government/defense labs and their computing restrictions. Knowledge of the Test and Training Enabling Architecture (TENA), the Joint Mission Environment Testing Capability (JMETC), and Distributed Testing and Training. Experience working with major DoD Acquisition programs such as Joint Strike Fighter (JSF) or Missile Defense Agency (MDA) is a plus. Knowledge of DoD Cybersecurity policies.

WHO WE ARE:

KBRwyle is KBR's global government services organization. We deliver mission critical, full life cycle services that improve military readiness, drive innovation, and help ensure mission success. Since WWII, we have led many of the federal government's most important programs in the areas of defense, space and technology. Today, our employees are solving some of the world's most challenging problems and inspiring the future. KBRwyle core capabilities include engineering, engineering, operations, logistics, science, program and acquisition management, IT, cyber and security services.

Learn more about KBRwyle by visiting <http://www.kbrwyle.com/> .

KBR is an equal opportunity employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, disability, sex, sexual orientation, gender identity or expression, age, national origin, veteran status,

genetic information, union status and/or beliefs, or any other characteristic protected by federal, state, or local law.

Job: Systems Engineering

Primary Location: US-US-FL-Niceville

Req ID: 1077516

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Our Code of Business Conduct

OFCCP's "EEO is the Law" Poster | OFCCP's "EEO is the Law" Poster Supplement

Individuals with disabilities who need assistance with the application process can reach KBR Employee Relations at <https://kbr.com/accessibility>.



Consulting Support Analyst I, Performance Improvement - Pensacola, FL (2019 Start)

Huron Consulting Group Inc. - Pensacola, FL

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Huron Consulting Group Inc.

110 reviews

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At Huron, you have the opportunity to discover your professional passions by being an integral part of our teams and getting exposure to a variety of projects. Our Analysts join us from a wide range of backgrounds and have immediate access to the training and coaching they need to drive impact and develop into the innovators and leaders of tomorrow. We provide the opportunity to enhance analytical skills while working as part of a team committed to developing creative insights, implementing processes, and driving tangible results.

The Consulting Support Analyst I supports various Performance Improvement consulting engagements through data gathering and analysis, functional and technical research regarding clients' processes and work, account sampling, technical testing, and research/resolution of technical issues regarding Huron's tools. Work is completed in the Pensacola office off-site from the client engagement teams, who are deployed at healthcare providers across the country. As such, this role requires frequent and effective communication via phone, email, and instant messaging. Direct client contact will vary by project, client, and task. Strong oral and written communication skills, analytical skills, ability to work independently and be self-motivated are required.

We pride ourselves on our company culture and the quality of character of our employees. We hold ourselves to the highest standards of professionalism, in order to meet the high expectations of both our clients and ourselves. At Huron you can expect to make an impact and develop to your greatest potential.

This position is located in our Pensacola, FL office.

Qualifications:

- Four-year bachelor's degree
- Strong performance in your degree of choice, with a minimum cumulative GPA of 3.0
- Highly proficient in Microsoft Excel and other Microsoft Office products

About Huron:

At Huron, we're redefining what a consulting organization can be. We go beyond advice to deliver results that last. We inherit our client's challenges as if they were our own. We help them transform for the future. We advocate. We make a difference. And we intelligently, passionately, relentlessly do great work...together.

Are you the kind of person who stands ready to jump in, roll up your sleeves and transform ideas into action? Then come discover Huron.

Whether you have years of experience or come right out of college, we invite you to explore our many opportunities. Find out how you can use your talents and develop your skills to make an impact immediately. Learn about how our culture and values

provide you with the kind of environment that invites new ideas and innovation. Come see how we collaborate with each other in a culture of learning, coaching, diversity and inclusion. And hear about our unwavering commitment to make a difference in partnership with our clients, shareholders, communities and colleagues.

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Coach Consultant, Studer Group - Physician Practice Management - Any US City

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IT Specialist Mid (*ACTIVE SECRET CLEARANCE REQUIRED*)

ACI Federal™ - Pensacola, FL

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SECRET CLEARANCE REQUIRED
COMPTIA SECURITY+ REQUIRED

Job Description/Duties:

Under general direction, applies specialized knowledge in a single discipline such as assembly/integration, cross-discipline functions, data engineering, industry expertise, knowledge engineering or legacy evolution.

- Applies specialization to conceptualize, design, construct, test and implement portions of business and technical information technology solutions through application of appropriate software development life cycle methodology.
- Interacts with the customer to gain an understanding of the business environment, technical context and organizational strategic direction.
- Defines scope, plans and deliverables for assigned projects.
- Collects, identifies, defines and organizes detailed user and information technology requirements.

Coordinates and collaborates with others in analyzing collected requirements to ensure plans and identified solutions meet customer needs and expectations. Confirms and prioritizes project plans and deliverables with the customer.

- Participates in business and technical information technology solution implementations, upgrades, enhancement and conversions.
- Understands and uses appropriate tools to analyze, identify and resolve business and or technical problems.
- Applies metrics to monitor performance and measure key project criteria.
- Prepares system documentation.
- Establishes and maintains security, integrity and business continuity controls and documents. Participates in special studies.
- Stays current on emerging tools, techniques and technologies.
- Assists information engineers on application of specialized knowledge to coding, testing, implementation and documentation projects.

Qualifications

- High school Diploma or General Equivalency Diploma (GED)
- 4-9 years of related experience in information systems.
- Valid DoD 8570: A+ce Certification (could accept Network +ce, Security +ce, or CISSP). If expiration date of Certification is less than 60 days from hire date, must provide a CompTIA report showing candidate has at least 75% of required CE Units needed to renew cert on file with CompTIA. P

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Bay State Pensacola, FL

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Security Analyst (CIRT)

Novel Applications of Vital Information Pensacola, FL

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17 days ago



Business Intelligence Data Analyst

Capstone Corporation Pensacola, FL

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IT infrastructure specialist

Mott MacDonald Pensacola, FL

Mott MacDonald - 30+ days ago



Risk Management Framework, Information Assurance, Assessment, and Authorization Specialist

Booz Allen Hamilton Pensacola, FL

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Database Engineer

NBS Enterprises, LLC in Pensacola, FL, USA

Computers/Software | Pensacola, FL

Title: Database Engineer

Location: Pensacola, FL

Emp Status: Regular / Full-time

PRIMARY FUNCTION

Solutions3, LLC, based out of Mahwah, NJ is seeking a junior to mid-level Database Engineer to support a contract in Pensacola, FL. In this role, the qualified candidate will provide technical expertise for database design, development, implementation, information storage and retrieval, data flow and analysis. You will develop relational and/or Object-Oriented databases, database parser software, and database loading software. You will be responsible for developing a database structure that fits into the overall architecture of the system under development and has to make trades among data volumes, number of users, logical and physical distribution, response times, retention rules, security and domain controls. You will work primarily at the front end of the lifecycle-requirements through system acceptance testing and Initial Operational Capability (IOC). You will develop requirements from a project's inception to its conclusion for a particular business and Information Technology (IT) subject matter area (i.e., simple to complex systems). You will assist with recommendations for, and analysis and evaluation of systems improvements, optimization, development, and/or maintenance efforts. You will translate a set of requirements and data into a usable document by creating or recreating ad hoc queries, scripts, and macros; updating existing queries, creating new ones to manipulate data into a master file; and building complex systems using queries, tables, Open Database Connectivity and database storage and retrieval while using Cloud methodologies.

ESSENTIAL SKILLS & RESPONSIBILITIES

- Zero (0) to Six (6) or more years of configuration management experience.
- Bachelor's degree in Computer Science, Mathematics, Statistics or a related field. Four (4) years of experience may be substituted for a degree.
- Master's degree in a related discipline may substitute for two (2) years of experience. Four (4) years of experience (for a total of six (6) or more years) may be substituted for a degree.
- Ph.D. may substitute for four (4) years of experience. Eight (8) years of experience (for a total of fourteen (14) or more years) may be substituted for a degree.
- DODI 8570.1 Compliance at IAT Level I certification.
- Apache Hadoop, PostgreSQL, MYSQL, VMware, Oracle DBMS knowledge or SQL Server and its tools including the facets of successfully administering a wide range of simple to highly complex environments.
- Experience with data and schema design and engineering
- Demonstrated practical experience with data migration from legacy systems to central repositories
- Industry standard exchange schema implementation experience (E.g. Cybox or Capec)
- Be able to evaluate and install new software releases, patches and system upgrades.
- Knowledge and understanding of all aspects of database tuning: software configuration, memory usage, data access, data

- Experience with development and execution of database security policies, procedures and auditing-experience with database authentication methods, authorization methods, and data encryption techniques.
- Supervises development of databases, database parser software, and database loading software.
- Coordinates development of database structures that fit into the overall architecture of the system under development.
- Assesses requirement recommendations from a project's inception to its conclusion for a particular Business and IT subject matter area (i.e. simple to complex systems)
- Leads development of databases, database parser software, database loading software and database structures that fit into the overall architecture of the system under development.
- Develops requirement recommendations from a project's inception to its conclusion for a particular Business and IT subject matter area (i.e. simple to complex systems).
- Possesses excellent oral and written communication skills.
- Must work well in a team environment as well as independently.
- Must exhibit good time management skills, independent decision making capability; focus on customer service.
- Ability to work with the other technical members of the team to administer and support the overall database and applications environment.

PREFERRED BUT NOT REQUIRED:

- The following certifications are desired: Cloudera Certified Professional (CCP): Data Scientist, CCDH: Cloudera Certified Developer for Apache Hadoop, CCAH: Cloudera Certified Administrator for Apache Hadoop, CCSHB: Cloudera Certified Specialist in Apache HBase & CSSLP Certified Secure Software Lifecycle Professional
- Understanding of Certification and Accreditation (NIST 800-53) processes as they apply to database technologies
- Experience with Map/Reduce technologies
- Experience with process development and deployment
- Trained in Six Sigma Methodology
- ITIL knowledge and certification
- Experience database engineering support to DHS, DoD or Intelligence Customers
- Data Scientist skills and experience
- Operating system and hardware platform knowledge preferred.
- Experience working with large unstructured data sets

CLEARANCE:

- U.S. Citizenship
- Active Top Secret/Sensitive Compartmented Information (TS/SCI) security clearance.

Solutions3 LLC is an equal opportunity employer and will not discriminate against any employee or applicant on the basis of age, color, disability, gender, national origin, race, religion, sexual orientation, veteran status, or any classification protected by federal, state, or local law



About NBS Enterprises, LLC:

NBS Enterprises creates competitive advantages. We isolate and overcome constraints to deliver performance value for all involved: you, your customer, and your employees. We break current market staffing trends with price-sensitive strategies solutions.

order levels. NBS' innovative 'Triangle' approach to staffing support provides you, your customer, and your future employee a risk mitigation solution that is second to none.

Company website: <http://nbs-advantage.com/careers>

Posted date: 16 days ago

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Analyst III

DELTA Resources, Inc. - Pensacola, FL

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DELTA Resources, Inc.

28 reviews

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About us

DELTA Resources, Inc. is a woman-owned business, established in 2000 to provide support services to the Federal government and private sector. With over 300 employees and annual revenues exceeding \$50 million, the company has sustained growth in the delivery of Systems Engineering, Integration, and Test solutions to DOD clients. DELTA achieves its corporate objectives through a commitment to excellent customer service and employee development. Our Mission: DELTA enables government decision-makers to make the best decisions for our country's future through quality products delivered by skilled professionals to ensure the highest caliber of service. DELTA accomplishes its mission through a partnership with our employees and customers.

Analyst III

General description / experience:

Data Analysis, Statistical Analysis, Financial Analysis, and Business Process Improvement.

General requirements:

Bachelor's degree in mathematics, statistics, business, law, engineering, social sciences, physical/applied science or management discipline such as business administration, accounting, finance, economics or management information technology.

5 years of experience

Must be eligible for a DOD Security Clearance

Preferred:

Prior U.S. Navy active service

Prior U.S. Navy Analyst experience

EEO Statement DELTA Resources Inc. provides equal opportunity for all persons and prohibits discrimination in employment because of race, color, religion, sex, sexual orientation, gender identity, national origin, age, disability (including pregnancy, childbirth or related medical conditions), veteran or marital status, or any other factor prohibited by law. This policy applies to all terms and conditions of employment, including, but not limited to, hiring, placement, promotion, termination, layoff, recall, transfer, leave, compensation, and training.

DELTA maintains an Affirmative Action Plan to establish fair access to employment opportunities and to create a work community that is an accurate reflection of the qualified workforce. Due to security clearance requirements, U.S. citizenship is required for most positions.

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Revenue Manager

Innisfree Corporate Office Gulf Breeze, FL >

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The LDM Group Pensacola, FL >

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14 days ago

Sr Manager RO Business Operations

Hilton Grand Vacations (HGV) Orlando, FL 32885 >

Hilton Grand Vacations (HGV) - 21 days ago

UWSD18-406: Financial Analyst II

Systems Planning and Analysis Pensacola, FL >

Systems Planning and Analysis - 13 days ago

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Senior Analyst jobs in Pensacola, FL

Jobs at DELTA Resources in Pensacola, FL

Senior Analyst salaries in Pensacola, FL

REMOTE - Project Manager to Support PoC/PoVs (Work From Home)

Anonos - United States

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Contract

Anonos is a fast growing company looking for a ProjectManagerwho wants to be part of an exciting period in the company's development and growth.

Please do not contact us if you are an agency or recruiter. We conduct our own in-house recruiting.

Why Anonos?

Our Co-Founders have been business partners for over 18 years and have an extremely successful track record. They previously built a company that was recognised as one of the fastest growing software companies on the Inc 500®for two years in a row, and was ultimately acquired by Nasdaq OMX. They have built a solid and cohesive team at Anonos which works quickly, acts quickly and values energy and focus.

We just received our 6th patent for our foundational technology, and Gartner named us a "Cool Vendor" due to our innovation and uniqueness in the marketplace.

We are launched, funded, have customers, an established partner channel, and are now ready for fast growth.

If you thrive working with the brightest engineers, the latest technologies, like to contribute and be challenged at the same time, and are comfortable working remotely, we should be a great fit for you.

About Our Product and Solutions

Anonos®BigPrivacy®patented technology enables compliant data innovation, analytics, use, sharing, combining, and re-linking by technically enforcing automated privacy and security controls in compliance with internal restrictions and external regulatory requirements.

Responsibilities for the Project Manager role to Support PoC/PoVs

PoC's

- Lead 3 hour tech sessions – step by step configuration of all PDI and BP steps in demo using Anonos synthetic data

PoV's

- Scoping and defining requirements of client IT environment vs Engine requirements
- Ability to work with client synthetic data (schema, data types, cleaning)
- Support synthetic data generation when required
- Support translation of client use case into VT configurations and data process flows
- Support client install and performs some initial first line troubleshooting

- Create and edit documentation
- Support HV “on-site” project manager
- Work closely with IT-Novum to ensure technical issues are addressed
- Training of HV and IT-Novum staff as needed

Backup Demo's

- Able to perform sales demos when needed
- Able to modify, update and improve existing demo's or create new ones

Skills

- (Technical/IT) Project Management experience; MS Project (or similar)
- Experience with data analytics – use cases, hands on, challenges
- Intermediate Excel (pivot tables, functions, data formatting, dates)
- Knows Tableau (or equiv) or can learn
- Using VPNs
- GitHub, ZenHub (or Jira or equiv)
- Command line (windows or linux) and vim (text editor); basic SQL
- Ability and desire to work 100% remote, completely virtual firm, but still highly collaborative, self-starter
- Superior verbal and written communication skills
- Interest in working for early stage startup – risks, flexibility, adaptability

Experience with any of the following is a significant plus

- PDI or other ETL tools
- Docker
- Kafka, AVRO
- Hadoop, MapR, HDFS or other BigData tools
- SSH
- Encryption or Tokenization
- Financial Service data and analytics use cases, especially at a large global fin svcs firm
- Agile development methodologies

If this sounds like the right environment for you, we welcome your application.

Learn more about Anonos at www.anonos.com

Job Type: Contract

Contract Length:

- More than 1 year

Contract Renewal:

- Likely

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Project Manager salaries in United States

Appendix G

Northwest Florida Organizations Hiring Data

Scientists

Data Analyst

Woodlands Medical Specialists - Pensacola, FL 32503

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Woodlands Medical Specialists

17 reviews

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Woodlands Medical Specialists is currently seeking a Data Analyst. The primary role of the Data Analyst is to provide recurring and ad hoc financial reporting, information, and analyses to members of management.

Major Responsibilities

- Compiles data for various administrative reports.
- Prepares /summarizes information from raw data using spreadsheets or other software.
- Requires the ability to create mathematical computations in spreadsheets and convert to presentation level materials.
- Works autonomously and collaboratively with report requestors, providing guidance to define report requirements and validate results
- Works collaboratively across departments to understand and meet the organization's clinical quality analytic needs
- Assists with maintenance of practice management and EMR systems
- Assists with new employee onboarding
- Special projects

*

Qualifications

- Bachelor's Degree in a healthcare-related field, science/social sciences, mathematics/statistics, information technology, or public/business administration
- Strong Excel including creating macros and SQL skills.
- Experience working with databases, large data sets, multiple data sources and interpreting complex data to create meaningful information
- Maintains strong attention to details and prioritizes workload while meeting deliverables and expectations
- Exhibits critical thinking and problem solving skills
- Excellent organization and people skills.

Woodlands Medical Specialists (www.woodlandsmed.com) is a twenty plus physician multispecialty, independent private practice offering patient-centered services at a state-of-the-art medical facility.

The Woodlands culture places high value on employees that demonstrate excellent customer service and are consistently team oriented. Learn more about our patient centered approach to healthcare at www.WoodlandsMed.com.

Job Type: Full-time

Education:

- Bachelor's (Required)

If you require alternative methods of application or screening, you must approach the employer directly to request this as Indeed is not responsible for the employer's application process.

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Uber Pensacola, FL

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Desktop Support Specialist (Secret Clearance)

SOC, LLC Pensacola, FL

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6 days ago



Healthcare Business Analyst - HealthRules

Impresiv Health Pensacola, FL

Impresiv Health - 15 days ago



IT Support Analyst

Ascend Performance Materials Pensacola, FL

Ascend Performance Materials - 6 days ago



VISTA- Data Coordinator and Analyst (Achieve)

United Way of Escambia County Pensacola, FL 32502

\$12,278 a year

[Easily apply](#)

15 days ago



Systems Administrator - Junior

XOR Security Pensacola, FL

[Easily apply](#)

19 days ago



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Data Analyst jobs in Pensacola, FL

Jobs at Woodlands Medical Specialists in Pensacola, FL

Data Analyst salaries in Pensacola, FL

QUALITY ANALYST

Baptist Management Services - Pensacola, FL

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Overview

The Quality Analyst is responsible for performing professional duties related to collecting, transforming, analyzing and reporting quality outcomes and process data that support stakeholders' decisions related to quality initiatives; patient safety; performance improvement initiatives; regulatory standards compliance; and policies and procedures. S/he will be responsible for preparing, analyzing and distributing reports in the form of dashboards, scorecards or other presentation tools. The Quality Analyst will be expected to develop expertise in specific, complex quality payment and reporting programs, as well as quality metrics and measures as defined by regulatory programs, and specific and specialized needs of clinical and business partners.

The person in this position works under general supervision, is responsible for various shifts, may be subject to over 40 hours per week and/or callback as required, and may be required to remain on campus immediately before, during, and after severe weather and/or disasters.

Qualifications

- Bachelor's Degree in Business, Healthcare, Tech or related field is required.
- Previous experience in work compiling, analyzing and/or presenting data is required
- Advanced Computer Skills required
- Advanced Microsoft Office Professional Suite skills, specifically including Microsoft Excel required
- Proficiency with MS Access or Power Query preferred
- Proficiency with Power BI, Tableau, Qlik or other data visualization tool preferred

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Navy Federal Credit Union - 19 days ago



ORGANIZATIONAL DEVELOPMENT COORDINATOR

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Data Analyst 122650

University of West Florida - Pensacola, FL

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The Data Analyst reports to the Director of Operational Performance Improvement and is responsible for collecting and analyzing data to generate reports, creating dashboards, surveys, and work plans, and performing advanced statistical data analysis predictive models. The incumbent designs, develops, implements, and manages data delivery systems that link the supply of data and the demand for data in the most efficient and effective manner. The incumbent creates and maintains exception reports, primarily in Tableau, assisting with data integrity, verification and associated cleanup. The incumbent defines and documents internal business processes and definitions in Confluence and works collaboratively with all units to define data needs and designs reports to empower users to make informed decisions. The incumbent proposes innovative solutions to complex business needs using all available reporting tools and technologies.

FLSA

Exempt

Minimum Qualifications

Master's degree in an appropriate area of specialization; or a bachelor's degree in an appropriate area of specialization and two years of appropriate experience.

Preferred Qualifications

Proven experience with report writing and technical requirements analysis, business process modeling/mapping, methodology development, and data modeling. Proven experience with reporting tools, software, and other applications, including Tableau. Considerable exposure to the operation and analysis of Oracle and SQL relational database and standards, as well as data retrieval methodologies. Extensive practical knowledge in importing data for use in report software, spreadsheets, graphs, and flowcharts.

Essential Functions

Description of Job Duty

Work with stakeholders to define business and systems requirements for new BI, analytics, and data warehousing. Ensure the efficient utilization of data resources across different business units. Oversee all reports, dashboards, and information artifacts. Facilitate system feasibility studies, proof of concepts, pilot project, and testing. Examine, refine, and develop BI metrics. Develop, implement, and maintain all key BI and data management policies and procedures, including standards, purchasing, monitoring, and service provision.

Percentage Of Time

35

Essential Functions

Description of Job Duty

Manage the deployment, monitoring, maintenance, development, upgrade, and support of BI systems, data integration, high availability, security, and data privacy. Define the short- and long-term strategies for BI/analytics program to ensure effective delivery of information that meets current and future requirements. Analyze existing operations and make recommendations for the improvement and growth of the BI architecture. Conduct research and remain current with the latest data technologies and solutions in support of future data management procurement efforts.

Percentage Of Time

25

Essential Functions

Description of Job Duty

Work with application development staff to coordinate the creation and management of data queries. Collaborate with unit directors, end users, development staff, and other stakeholders to integrate data mining applications with existing systems. Provide and apply quality assurance best practices for data mining/analysis services across the organization. Create data definitions for new database file/table development and/or changes to existing ones. Determine required network components to ensure data access, as well as data consistency and integrity. Develop routines for end users to facilitate best practices use of data mining tools. Collaborate with database and disaster recovery administrators to ensure effective protection and integrity of data assets. Monitor data mining system details within the database, including stored procedures and execution time, and implement efficiency improvements. Respond to and resolve data mining performance issues.

Percentage Of Time

20

Essential Functions

Description of Job Duty

Coordinates the design and publication of FLVC online surveys, using established survey software. Works with in-house subject experts to determine appropriate content for data collection tools such as surveys. Monitors progress, and compiles, compares and validates results. Creates narrative or statistical reports for delivery in electronic format to external and internal audiences.

Percentage Of Time

10

Essential Functions

Description of Job Duty

Ensure change management practices conform to organization-wide standards. Establish and maintain regular written and in-person communications with the organization’s executives, department heads, and end users regarding information-based decision making.
Other duties as assigned.

Percentage Of Time

10

Physical Demands

Physical Requirements

1- No unusual physical requirement.

Standing

Daily

Walking

Daily

Sitting

Daily

Reaching with hands and arms

Daily

Climbing or balancing

Occasionally

Stooping, kneeling, crouching or crawling

Occasionally

Use of hands to handle objects

Daily

Lifting up to 10 pounds

Daily

Lifting up to 25 pounds

Daily

Lifting over 25 pounds

N/A

Talking: Express or exchange ideas verbally

Daily

Hearing: Perceive sound by ear

Daily

Vision: Ability to distinguish similar colors, depth perception, close vision

Daily

Special Requirements or Considerations of the Job

Special Requirements or Considerations of the Job

This position requires a criminal background screen.

Posting Details

Posting Details

Employment based visa sponsorship will NOT be considered for this position.

Requisition Number

S00637PO

Number of Vacancies

1

Normal Work Hours

Monday through Friday, 8:00 a.m. to 5:00 p.m. unless otherwise authorized.

Contract Period

FTE

1

Salary Range

60,000-65,000

Pay Basis

Annually

Work Location

Pensacola, FL

Desired Start Date

02/25/2019

Position End Date

Open Date

Close Date

02/18/2019

Open Until Filled

Yes

Special Instructions to Applicants

Candidates must apply online through the University of West Florida website: <https://jobs.uwf.edu>.

Applicants are required to attach a resume, cover letter, and list of three professional references.

An opportunity to upload these documents will be provided during the application process.

For assistance, please contact Human Resources at 850-474-2694 or email jobs@uwf.edu.

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University of West Florida

Pensacola, FL

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- 5 days ago

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United Way of Escambia County

Pensacola, FL 32502

\$12,278 a year

Easily apply

15 days ago

Program and Policy Analyst (DoD)

The LDM Group

Pensacola, FL

Easily apply

30+ days ago

Business Intelligence Data Analyst

Capstone Corporation

Pensacola, FL

Easily apply

4 days ago

Program Management Analyst (OCM/Transformation/DoD) - FL

The LDM Group

Pensacola, FL

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Data Analyst salaries in Pensacola, FL

Database Administrator & Researcher

Ropella - Milton, FL 32583

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The Database Administrative Assistant & Researcher, as part of the Ropella Media team, will be a dynamic, highly motivated individual who maintains the Ropella databases by identifying and solving database concerns in support of various users, and provides research in support of marketing requirements. The successful candidate will be extremely detail oriented with excellent communication skills, and will be required to assist with other administrative and business development duties. The database administrator works very closely with all Ropella Group professionals, as well as Xcavate personnel.

Duties & Responsibilities

- Database management/cleaning.
- Basic and advanced data entry.
- Research verification by telephone and interview.
- Internet research for competitive information.
- Write and disseminate reports.
- Identify database requirements by interviewing customers; analyzing department applications, programming, and operations; evaluating existing systems and designing proposed system upgrades.
- Recommend solutions by defining database physical structure and functional capabilities, database security, data back-up, and recovery specifications.
- Install revised or new systems by proposing specifications and flowcharts; recommending optimum access techniques; coordinating installation requirements.
- Maintain database performance by calculating optimum values for database parameters; implementing new releases; completing maintenance requirements; evaluating computer operation systems and hardware products.
- Prepare database users by conducting training; providing information; resolving problems.
- Support database functions by designing and coding utilities.
- Maintain quality service by establishing and enforcing organizational standards.
- Maintain professional and technical knowledge by attending educational workshops; reviewing professional publications; establishing personal networks; benchmarking state-of-the art practices; participating in professional societies.
- Help to identify new database sources, cost of sourcing and data transfer.
- Participate in the research process by generating names for specific assignments using the phone, print materials, and a wide range of online information resources.
- Identify, generate, and distribute supporting research information for active search assignments
- Support search consultants for specific engagements by generating names of potential candidates for a specified search.

Requirements

- At least 2 to ideally 4 years' experience designing, developing and generating reports from a relational database application.
- Database design, deployment and management experience is highly desirable.
- Detail oriented and ability to effectively prioritize multiple tasks.
- Good verbal and written communicator.
- Expert knowledge of various communications media and tools, including: E-mailing software as well as Microsoft Outlook and Exchange; office software (Word, Excel, PowerPoint, Acrobat).

- Keyboarding/ typing ability required (40 words per minute).
- Demonstrate knowledge and skills in project management methodologies, practices, and techniques/tools.
- The ideal candidate must have the ability to multitask with a number of different constituencies on a number of simultaneous projects.
- Undergraduate degree in business or statistics is strongly desired. With courses of study in: operational research, mathematics, electronics, computer science/studies or software/computer engineering is advantageous.
- Required upon hire to sign a non-compete agreement, a drug-free and tobacco-free workplace.

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MIDDLEWARE SYSTEM ADMINISTRATOR Baptist Hospital Pensacola, FL Baptist Health Care - 22 days ago	>

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Database Administrator jobs in Milton, FL

Jobs at Ropella in Milton, FL

Database Administrator salaries in Milton, FL

----- Forwarded message -----

From: <Will_Ussher@navyfederal.org>
Date: Wed, Jan 23, 2019 at 10:34 AM
Subject: Re: [External]Data Science at UWF
To: Jaromy Kuhl <jkuhl@uwf.edu>
Cc: <Traci_White@navyfederal.org>

Hello Jaromy,

Traci has transitioned to a new role at Navy Federal, so I am your contact if needed.

Navy Federal is always looking for Data Analyst enthusiasts, below are some of our positions we hire for on a full time basis periodically.

By the way, Dr. Liu reached out to me as well and we are working on potentially scheduling an information session in February or March.

Below is a list of common job titles seeking candidates with a relevant degree such as Analytics. A copy of a job posting for a Business Operations Analyst in Vienna, VA is below.

Let me know if you have any questions.

- Business Intelligence Analyst**
- Workforce Management Analyst**
- Predictive Modeler**
- Business Operations Analyst**
- Business Systems Analyst**
- Financial Risk Analyst**
- ISD Analyst**
- ISD Engineer**

Job Description

Employee Perks

Why You Will Love Being Part of the Navy Federal Team:

- *Competitive compensation with opportunities for annual raises, promotions, and bonus potential
- *Best-in-Class Benefits! (7% 401k match / Pension plan / Tuition reimbursement / Great insurance options)
- *On-site amenities include fitness center, wellness center, cafeteria, etc. at Pensacola, FL; Vienna, VA and Winchester, VA campuses
- *Consistently Awarded Top Workplace
- *Nationally recognized training department by TRAINING Magazine
- *An employee-focused, diverse, and service-oriented workplace environment

Basic Purpose

Fraud rule writer for the Card Fraud Prevention Analytics team.

Major Responsibilities:

- Data querying, correlation, detailed analysis, and rule deployment to mitigate credit card and debit card fraud
- Define, analyze and study fraud related financial and operational issues
- Perform qualitative and quantitative analysis using analytical techniques, tools, models, simulations, etc.
- Perform other duties as assigned

Qualifications:

- Bachelor's Degree in a related field or the equivalent combination of training, education, and experience
- Advanced research, data querying, analytical, and problem solving skills
- Expert level of proficiency in MS Office (Excel, PowerPoint, Word)
- Advanced SQL
- Experience with JMP desired

Will Ussher
Recruiter, Talent Acquisition
Navy Federal Credit Union
5550 Heritage Oaks Dr
Pensacola, FL 32526
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Office: 850-912-5249
iphone: 850-503-5108
Fax: 850-912-0096

Happy New Year Dr. Liu,

Theresa Goodyear's Lending Analytics team may have full time openings starting in June which could be ideal for the May 2019 graduates within your program.

We are always looking for sharp data science graduates at UWF as we continue to strengthen our partnership.

For your reference, our positions are posted on www.navyfederal.org. If you have any students seeking full time opportunities effective May 2019, they can monitor our website for positions relevant to their skill set. I'm a resource for you as well.

Is it possible we can host another information session in February or March time frame? That could be another opportunity to connect with your students about our positions.

Will Ussher
Recruiter, Talent Acquisition
Navy Federal Credit Union
5550 Heritage Oaks Dr

Pensacola, FL 32526

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Office: 850-912-5249

iphone: 850-503-5108

Fax: 850-912-0096

Appendix H

Email Exchange Between UWF and UCF

Re: FW: Combined UWF/UCF education/research program

1 message

Thu, Feb 7, 2019 at 9:46 AM

----- Forwarded message -----

From: **Subhash Bagui** <sbagui@uwf.edu>

Date: Wed, Aug 29, 2018 at 9:05 AM

Subject: FW: Combined UWF/UCF education/research program

To: Jaromy Kuhl <jkuhl@uwf.edu>

Hi Jaromy: See the email below from Professor J. Kapat from UCF. I will contact him today for a possible visit at UWF on Sept 14.

SB

From: Jayanta Kapat <Jayanta.Kapat@ucf.edu>

Sent: Tuesday, August 28, 2018 11:56 AM

To: sbagui@uwf.edu

Cc: Seetha Raghavan <Seetha.Raghavan@ucf.edu>; Jeffrey L. Kauffman <JLKauffman@ucf.edu>; Pallavoor Vaidyanathan <vaidy@ucf.edu>

Subject: Combined UWF/UCF education/research program

Dear Prof. Bagui,

It was nice talking to you.

I am also copying my colleagues and our Assistant VP for Research.

(Since we do not have a combined (or 3 way) disclosure agreement with GE, I have removed the GE-related components from the following picture.)

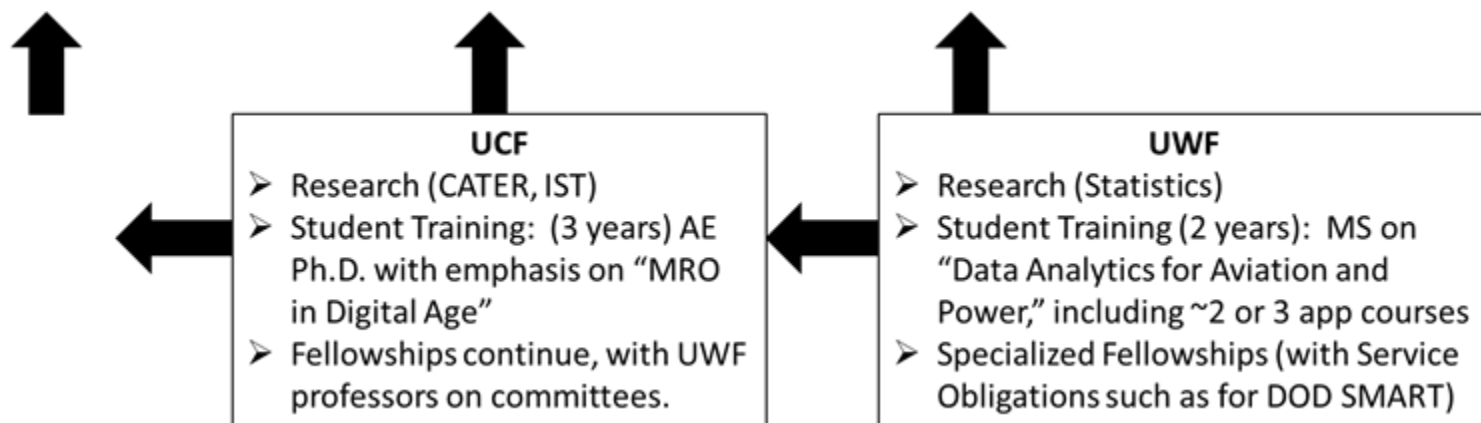
GE Aviation and Triumph Gulf Coast (TGC) are in discussion to potentially have a project funded by TGC for digital aspects of MRO (maintenance, repair and overhaul of airplanes). So GE Aviation approached us, and we realize that there must be a strong workforce development component in this proposal.

So based on the brainstorming session between us and TGC, and GE and us, we thought of the following arrangement.

[Of course, there will also be potential research components for UWF and UCF. But we will get into that once three groups (GE, UWF and UCF) sit down together.]

This email is for potential teaming together between UWF/UCF for a 5-year program on MS on "Data Analytics for Aviation and Power" in UWF, followed by Ph.D. in Aerospace Engineering with emphasis on MRO in Digital Age at UCF. Of course, we can have collaborations at various levels: professors from one university in the thesis/dissertation committees in the other place, joint publications etc.

Our objective is to create a joint research-based MS/Ph.D. degree program, with GE as an industry partner, that is unique in the country or even in the world, and with great reputation.



At the end, whatever we do must be win-win-win-win for UWF/UCF/GE/TGC.

Looking forward to more discussion, and possibly visiting you on September 14.

Best Regards,

Jayanta

Jayanta S Kapat, Sc.D. (MIT)

UCF Pegasus Professor, and Trustee Chair Professor

Mechanical & Aerospace Engineering Department

Founding Director, Center for Advanced Turbomachinery & Energy Research (CATER)

Associate Director, Florida Center for Advanced Aero-Propulsion (FCAAP)

University of Central Florida

12760 Pegasus Drive, Room 407E, ENGR Building

Orlando, FL 32816-2450

(407) 823-2179 (office), jayanta.kapat@ucf.edu

(407) 617-1201 (mobile), jkapat@alum.mit.edu