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Princess Priscilla Lyons

Education

University of Florida, Gainesville, Florida 3.46/4.00
Master of Science in Electrical & Computer Engineering, May 2019
Research Interests: Machine Learning, Natural Language Processing, Data Analytics

University of Missouri, Columbia, Missouri 3.16/4.00
Dual Bachelor of Science in Electrical & Computer Engineering, Honors Scholar, May 2017
Minors in Mathematics, Computer Science & Spanish

Work Experience

***Graduate Research Assistant*, University of Florida – GatorSense** **Fall 2017 – Fall 2019**
Machine Learning & Sensing Lab *Gainesville, Florida*

- Conducted research utilizing techniques in machine learning, image processing and pattern recognition
- Cooperated with a team of researchers from remote universities to develop an environmentally adaptive target characterization and detection system
- Compared and developed unsupervised and supervised anomaly and target detection methods in synthetic aperture sonar (SAS) imagery
- Authored and presented a SPIE Defense + Commercial Sensing research paper titled, "Comparison of Prescreening Algorithms for Target Detection in Synthetic Aperture Sonar Imagery." [1]

***Software Engineering Intern*, Lockheed Martin – Space Systems Company** **Summer 2016/2017**
King of Prussia, Pennsylvania

- Collaborated with a team of software engineers on an independent research and development project
- Created C++ software tools to parse SDAS files of a switch matrix to locate errors in the hardware configuration, return all USB device names, GUIDs and paths to the user
- Designed a C++ driver to interface with a Serial I/O SIO4 board using a RS422 communication standard on a RedHawk Linux real-time operating system
- Utilized the Hardware-in-the-Loop (HWIL) technique to troubleshoot and perform successful transmissions and receptions of data with a serial I/O SIO4 board for an integrated flight simulation

***Undergraduate Research Assistant*, University of Missouri – TigerSense** **Spring 2015 – Spring 2017**
Machine Learning & Sensing Lab *Columbia, Missouri*

- Communicated with interdisciplinary researchers to detect the target signature of HLB infected orange trees in Florida using hyperspectral image analysis
- Analyzed and adjusted parameter settings for experiments on bed-sensor ballistocardiogram signals using the Extended Functions of Multiple Instances (eFUMI) algorithm to successfully detect heartbeat signatures
- Co-authored an IEEE Engineering in Medicine and Biology Society Conference accepted research paper titled, "Heart Beat Characterization from Ballistocardiogram Signals using Extended Functions of Multiple Instances."

Skills & Relevant Courses

- Skilled in C, C++, Java, Python, R, CUDA, OpenMP and Matlab programming languages
- Software Design, Embedded Systems and Computer Architecture, Hardware Security
- Machine Learning, Image Processing, Data Analytics and Digital Signal Processing
- Fundamentals of Biometric Identification
- Advanced conversational Spanish

Honors, Leadership & Activities

- U.S DoD Secret Security clearance
- Univ. of Florida Graduate Research Assistantship Award
- Univ. of Missouri, Celebration of Women in Engineering Honoree 2016
- Univ. of Missouri Dean's List (Fall 2014, 2016)
- Univ. of Missouri Engineering Ambassador (2014-2015)
- Mizzou Institute of Electrical & Electronics Engineers Secretary (2015-2016)
- Mizzou Institute of Electrical & Electronics Engineers Treasurer (2016-2017)
- Griffiths Leadership Society of Women (2014-Present)
- National Society of Black Engineers (2012 – Present)

[1] **P. Lyons**, D. Suen, A. Galusha, A. Zare, and J. Keller, "Comparison of Prescreening Algorithms for Target Detection in Synthetic Aperture Sonar Imagery" in Proc. SPIE 10628, Detection and Sensing of Mines, Explosive Objects, and Obscured Targets XXIII, 2018.
https://faculty.eng.ufl.edu/machine-learning/2018/03/lyons2018ace/