Kelsey Horace-Herron

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EDUCATION

University of Florida Gainesville, FL
MS/Ph.D., Computer Engineering Aug 2020 – Present
Capstone Thesis Project:

- Noninvasive substance authentication using Nuclear Quadrupolar (NQR) Spectroscopy

Jackson State University Jackson, MS
B.S Computer Engineering Aug 2016 – May 2020
3.5/4.0

PROFESSIONAL EXPERIENCE

Air Force Research Laboratory Albuquerque, NM
Graduate Researcher Jun 2022 – Aug 2022

- Assisted with research for Drone Navigation using Machine Learning and sonar. Worked in MATLAB and Jupyter Notebook.
- Applied Linear Regression to analyze leaf audio using NumPy, for 70% accuracy.
- Managed and formatted dataset of <20000 data samples.
- Presented research during the end of summer poster and PowerPoint presentations.

Naval Research Laboratory Virtual
Graduate Researcher June 2020 – Nov 2020

- Worked with map-reduce frameworks to perform intensive offline calculations across large amounts of data.
- Wrote services to train machine learning models from stored data and provide real-time scoring client services.
- Provide a web-based interface to give high-level control over the machine-learning system to non-technical users.
- Updated and rewrote old code to reduce technical debt and improve service performance, scalability, and reliability.

University of Florida – SURF Program Gainesville, FL
Undergraduate Researcher May 2019 – Aug 2019

- Utilized portable handheld Near Infrared Region (NIR) Spectroscopy device to detect harmful ingredients.
- Developed skills in formal presentation, data analysis, and research methodologies.

University of California – Berkeley Berkeley, CA
Graduate Researcher Jun 2018 – Aug 2018

- Worked alongside Ph.D. mentor on a project that was based on back-end-of-line nanotechnology reconfigurable interconnects.
- Formed a SF_6 and O_2 etch recipe on a 65nm node chip to release the moveable beam at UC-Berkeley nanofabrication laboratory.
- Collected images of 65nm node chip after etching process using a scanning electron microscope (SEM)
- Tested node chip on vacuum probe station by applying voltage to find device properties.

SKILLS & INTERESTS

Computer Skills: Proficient in C/C++, Python, MATLAB, GNU Octave, SolidWorks
Interests: IoT devices/applications, coding, research
Security Clearance: Secret