

REGAN WILLIS

Software Engineer
Columbia, SC

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PROFESSIONAL EXPERIENCE

Software Engineer & Machine Learning Engineer

July 2022–present

Integer Technologies, LLC.

Using software engineering strategies and machine learning algorithms to support research and development of the Reliable Maritime Perception System.

- Led development of the software for a synchronized data acquisition system composed of multiple networked machines, cameras, and motion sensors.
- Conducted multiple data capture events in the field with the data acquisition system.
- Led development and testing of a visually based naval navigation product, including applying a common segmentation model for object detection and a novel geometric range-finding method using Python, ROS, Pytorch and other tools.
- Presented research to stakeholders, including quarterly presentations to the Office of Naval Research (ONR) and bi-weekly updates to our university project partner.
- Worked with the South Carolina HBCU Consortium to mentor software engineering apprentices and reported to representatives on how to fill academic gaps.
- Implemented our version control system using Git/GitHub.

Associate Python Developer

Jun. 2021–Dec. 2021

Florida Blue (Blue Cross, Blue Shield)

Supported the member payment processes with the Premium Processing Experience (PPX) team.

- Supported the member billing system backend processors by addressing bugs and adding features.
- Presented code changes to other developers and QA testers for review.
- Deployed changes in API services to live production in a CI/CD environment.

Research Software Engineer

Jan. 2020–May 2021

Advanced Smart Systems and Evaluation Technologies (ASSET), LLC.

Research and development of healthcare technology using vibration signals for gait identification and fall detection.

- Collected vibration data and trained a neural net to identify people by their gait.
- Created a Python/OpenCV system with facial recognition to pull data from a camera API.
- Augmented internal Python systems to aid in data collection.
- Presented code to legal team and installed on-site.
- Created a web-based technician dashboard to aid in data collection.

EDUCATION

B.S., Computer Information Systems

2021

University of South Carolina

- Information Assurance Specialization from the National Security Agency and the Department of Homeland Security.