Daniel Williamson

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Education

University of Florida
July 2016 - December 2020

Bachelor of Science in Computer Science
Minors: Physics, Digital Arts and Sciences
GPA: 3.50 / 4.00

Experience

Undergraduate Student Researcher
University of Florida Machine Intelligence Lab
Sep 2019 - Present | Gainesville, Florida

- Collaborated within a multidisciplinary engineering team on the system design of an Autonomous Underwater Vehicle, an Unmanned Maritime Vehicle, and an Autonomous Racecar.
- Designed algorithms utilizing cameras, sonar, and other external sensors (**ROS**, **Python, C++**) for perception, motion-planning, controls, and simulation.
- Reviewed code to ensure workability of autonomous robot for IEEE Southeast Conference, OpenRobotics Virtual RobotX and the Indy Autonomous Challenge, competing against **37** universities from **11** countries.

Cloud Security Intern
Capital One
May 2020 - Aug 2020 | Mclean, Virginia

- Analyzed and understood the overarching threat landscape and developed strategies to deliver efficient, comprehensive solutions to satisfy those needs in an objective manner.
- Designed a CLI using **Python** to filter through AWS service actions based upon a risk threshold.
- Compiled reports based upon **>4tb** daily throughput of CloudTrail logs detailing vulnerabilities and suspect activity to enable governance and mitigate risk.
- Built and Automated **AWS** cloud architecture tools to within an **Agile** framework.

Software Engineering Intern
Lawrence Livermore National Laboratory
May 2019 - Aug 2019 | Livermore, California

- Participated in the research, design, and development of a first response tool for the National Atmospheric Release Advisory Center (NARAC).
- Created individual modules, components, and directives with single repsonsibility principal using **TypeScript** and **Angular**.
- Built scalable, RESTful API's, and file processing servers using **NodeJS** that reduced data size by **>97%**.
- Automated enviroment deployment using bash scripting and **Docker**.

Product Designer
General Relief in Prosthetics
Sep 2016 - Nov 2018 | Gainesville, Florida

- Led the research, prototyping, usability testing and design of prosthetic devices to improve utility to more than **70** users with an upper residual limb.
- Spearheaded **12** projects that included allowing the user to go fishing and play the guitar with one arm.
- Collaborated with other engineers, designers, and event management to promote STEM interest and offer local youth adaptive solutions for routine and recreational activities.

Coursework

- Operating Systems
- Data Structures and Algorithms
- Linear Algebra
- Numerical Analysis
- Modern Physics
- Human Computer Interaction
- User Experience Design
- Computer Network Fundamentals

Skills

Languages
- Python
- Javascript
- Java
- C / C++
- Bash

Frameworks
- Angular
- NodeJS
- ROS
- AWS
- Keras / Tensorflow

Tools
- Linux
- Git
- Docker
- Adobe Creative Suite
- Unity