

Daniel Williamson

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<http://danielwilliamson.me>

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

Student Researcher

University of Florida Machine Intelligence Lab

Sep 2019 - Present | Gainesville, Florida

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

Software Engineer

UF Shands Hospital Neurosurgery Dept.

Aug 2020 - Present | Gainesville, Florida

- ◆ Developing a GPU- accelerated ray-tracing engine in **Metal** to display interactive MRI, and CT scan data.
- ◆ Architecting, restructuring, and automating iOS development and deployment using **AWS**, **Swift**, and **Python**.
- ◆ Abstracting previous backend workflows segmenting and registering tumors and specific brain regions and encapsulating them to provide more utility.

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 responsibility principal using **TypeScript** and **Angular**.
- ◆ Built scalable, RESTful API's, and file processing servers using **NodeJS** that reduced data size by **>97%**.
- ◆ Automated environment deployment using bash scripting and **Docker**.

Product Designer

General Relief in Prosthetics

Sep 2016 - Nov 2018 | Gainesville, Florida

- ◆ Lead and organized 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.

Skills

Languages

Bash, C/C++, C#, Java, Javascript, Python, SQL, Swift

Frameworks

Angular, fastai, Keras / Tensorflow, NodeJS, ReactJS, ROS

Tools

Linux, AWS, Git, Docker, Adobe Creative Suite, Unity

Other

Risk Management, Rapid Prototyping, Strategy and Problem Solving