

Daniel Williamson

239 910 5858

danielw27@ufl.edu

<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

Software Engineer

Capital One

Feb 2021 - Present | Mclean, Virginia

- ◆ Automated the daily ETL of risk management data to provide a dashboard to track risk across the enterprise using more than **90 metrics**. Analyzed this data to automate the creation of reports to highlight major changes.
- ◆ Architected and stood up a process for automating the failover of our databases for disaster recovery events. Improved failover time by **80%**.
- ◆ Built and owned the maintenance of multiple scalable microservices in **AWS** which consume and produce from data streams to enable Real Time Payments for customers **24/7** + APIs handling **>10k TPS**

Software Engineer

UF Shands Hospital Neurosurgery Dept.

Aug 2020 - Dec 2021 | Gainesville, Florida

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

Student Researcher

University of Florida Machine Intelligence Lab

Sep 2019 - Dec 2020 | 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 RobotX and 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 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**.

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