Daniel Williamson

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Experience

Software Engineer

Capital One
Feb 2021 - Present | Mclean, Virginia

◆ Optimized performance across multiple services by 750% using threading and asynchronous methods.
◆ 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
◆ Automated the daily ETL of risk management data to provide a dashboard to track risk across the enterprise using more than 90 metrics.. Used Machine Learning to automate reporting and anomaly detection.
◆ Architected and set up a process for automating the failover of our databases for disaster recovery events. Improved failover time by 80%.

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 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.

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

Skills

Languages	Shell, C/C++, C#, Java, Javascript, Python, SQL, Swift
Frameworks	Angular, Spring, Keras / Tensorflow, NodeJS, ReactJS, ROS
Tools	Linux, AWS, Git, Docker, Adobe Creative Suite, Unity
Other	Risk Management, Rapid Prototyping, Strategy and Problem Solving