

ROBERT MORRISON

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EDUCATION

University of Maryland, College Park

B.S. in Computer Science & Statistics

May 2020

GPA 3.6

Recognition: Brian G. Lyons Computer Science Endowed Scholarship (2019), RSA Conference Security Scholars (2019), Maryland Summer Scholars Grant (2018)

TECHNICAL SKILLS

Programming Languages

Python, C++, C, Java, SQL, Haskell, Rust, JavaScript, Go, OCaml

Tools

Docker, Git, Linux, CI/CD, Numpy, Pandas, Sci-Kit Learn

Other

AutoCAD, L^AT_EX, MatLab, Unit Testing, Agile Methodologies

PROFESSIONAL EXPERIENCE

Lockheed Martin

Software Engineering Intern

Jun 2019 - Aug 2019

Rochester, NY

- Re-designed, built and tested a flight data analysis tool in Python used by data scientists and engineers every day
- Overhauled the documentation and fielded maintenance and feature requests for the tool
- Built an internal package management system to boost daily productivity for data scientists, engineers and developers
- Integrated the package management system directly with continuous integration and deployment software

National Institute of Standards and Technology

Software Engineer

Jun 2018 - Aug 2018

Gaithersburg, MD

- Overhauled a legacy flame speed analysis program written in C++ to update it to modern code standards and make it more maintainable in the future while increasing the speed of calculations
- Worked with researchers directly to develop tests for the programs and make sure the new methods were not negatively affecting the accuracy of the results
- Documented the resulting code thoroughly to ensure the maintainability of the program

University of Maryland

Undergraduate Researcher

May 2017 - Present

College Park, MD

- Received the competitive Maryland Summer Scholars grant which is given to less than 30 undergraduates each summer
- Researched and implemented new data oriented vulnerability detection processes for use in the context of software development using Sci-Kit Learn
- Wrote a full technical report describing experimental design and results along with a poster presenting those findings

FedCentric Technologies

Data Science Intern

Jan 2017 - Aug 2017

College Park, MD

- Rapidly learned data science and machine learning techniques over the course of a semester
- Replicated and extended past research on machine learning vulnerability detection on old data-sets using a variety of Python machine learning libraries and R data management tools
- Improved predictive capabilities with improved methods suggesting possible industry applications that would reduce the cost of vulnerability detection by finding problems before release

PROJECT EXPERIENCE

NetZero

A tool to glean insights on the efficiency of a house

Apr 2019 - Present

- Built, tested, documented and deployed a fully fledged Python command line tool
- Utilized multiple web API's and SQLite to collect and warehouse data in a fault tolerant manner
- Implemented an extension system so new data sources are trivial to add

Trigger Happy

A smart nerf gun

Oct 2018

- Prevents lethal shots from being made using arduino boards connecting a nerf gun mounted webcam to TensorFlow's computer vision abilities
- Won HackPSU Overall - Grand Prize and Booz Allen Hamilton - Best Machine Learning Hack