AARON ELINE

EDUCATION

University of Maryland, College Park *August 2017 - Present*
BS Computer Science, concentration in Cyber Security. Expected Graduation: 2021
GPA: 3.8

Expecting to graduate with Computer Science Honors

WORK EXPERIENCE

Correct Computation 2019 - Present
Intern

· Worked on *Checked C* language tooling.*Checked C* is an extension to C that provides spatial memory safety, allowing developers to extend their existing C applications in a safe way. At Correct Computation I work on the development of *Checked-C-Convert*, an automated tool for annotating C code with *Checked* annotations, allowing for developers to have increased confidence in the correctness of their code.

Harbor Labs 2016 - 2019
Lead Intern

· Worked on back-end for firmware analysis web-app.
Harbor Labs was developing a firmware analysis web application, I worked to develop the back end. I worked on the Python analysis engine, doing some high level design, implementation, and optimization. Part of the optimization work involved porting a module to Rust. I also worked on the AWS infrastructure for the application.

· Implemented libraries for clients.
Helped in developing, testing, and documenting a secure cryptography library in C for a client.

· Performed analysis on a Java application for security vulnerabilities.

System Source 2014 - 2016
Intern

· Engaged in customer troubleshooting hosting issues for customers.

· Deployed VOIP solution for customers.

PERSONAL PROJECTS

Formally Verified Secure Information Flow (https://github.com/aaronjeline/InfoFlow)
A formalization of a secure information flow language in Coq.
Accompanied by a proof of correctness.
Racket System F (https://github.com/aaronjeline/systemf)
An implementation of System F using Racket's Redex language design framework.
Rust Container Engine (https://github.com/aaronjeline/containers)
A Linux container implementation in Rust

TECHNICAL STRENGTHS

Programming Languages: C, Python, Java, Rust, Ocaml, Haskell, Racket, Coq
Computer Security: Reverse Engineering, Web Security, Binary Exploitation
Build It/Break It: Only team in *CMSC 388N* competition to have no discovered vulnerabilities