

Experience

DevSecOps Engineer II at Lockheed Martin | King of Prussia, PA Since May 2020

- AEHF Operational Support Element. Primary RHEL Administrator and DevOps Engineer in an on-premise datacenter.
- Developed and automated CI/CD Pipelines. Provides builds, hosted repositories, automated testing, static code quality and security analysis in a quick, consistent, and accurate environment on Windows, RHEL and in containers.
- Architected and implemented all Linux assets in the environment. Deployed relevant security tools and configurations.
- Architected Kubernetes and Docker implementations and designed hardened containers based on requirements.
- Implemented required PKI for Linux hosted development assets.
- Implementing DoD Risk Management for hardening OS and implementing strict and robust access control. Assessing compliance and performing remediation, automated with Ansible.

Systems/Software Engineering Intern at Lockheed Martin | King of Prussia, PA May 2018-April 2020

- Engineering work with Java, C++, GNU Radio on a large scale, micro-service driven, command and control application.
- Administration work with Windows and Unix environments, networking systems and more.
- Extensive work on agile teams, working with classified material, and creating automation systems.

Software Engineering Intern at Clair Global | Lititz, PA May 2017 – September 2017

- Created mobile offices to ship out to concert venues, that provided quickly deployable mesh networking and a secure tunnel back to the local data center. Using Telegraf, Elasticsearch, InfluxDB, and Grafana telemetry was collected from the networks, stored, and displayed for Clair executives and shareholders.

Projects

Cosmic | Senior Project Since August 2019

Cosmic is a fully simulated 8-bit computer architecture. The entire architecture and instruction set was created from scratch and works in a rich environment. The environment includes a debugger, a full-fledged GUI and an assembler. Cosmic is hard to explain in words, but better in code: <https://github.com/clbx/Cosmic>

LoveCube | Personal Projects July 2020

LoveCube is a wireless message box based off the ESP32 written in C++. I built a circuit that connected notification LEDs and an OLED screen to an ESP32 to display messages that it pulls off a central server. The server is written in Python and uses a MySQL database to store messages sent to it by the users. I also modeled and 3D printed the enclosure that it's housed in. Software and designs are available on GitHub: <https://github.com/clbx/LoveCube>

Otis | Elizabethtown College January 2019 – May 2019

An affectionally named neural networking algorithm, Otis was developed by 5 students on an Agile team where I acted as our scrum master. Otis can learn based on binary data and make reasonably accurate assumptions about the data. Otis' development was fully automated with CI/CD, unit testing, automatic documentation, and code coverage. All code is available on GitHub: <https://github.com/etown-blue-team/Otis>

HomeLab | Personal Project Since 2016

A continuing project in learning more about networking, security, and systems administration. "JuiceNet" is a home networking setup which is made of enterprise grade equipment. JuiceNet is wholly Infrastructure as Code being entirely stood up using Terraform, Ansible and similar technologies.

Skills & Abilities

Languages: C/C++, Java, C#, PowerShell, Bash, Python, Rust, Swift, HTML/CSS, MySQL, Java/TypeScript, MATLAB, and more
Platforms: Windows, Linux, and Unix servers, Git, Gitlab, CI/CD, Ansible, Terraform, Docker, Kubernetes and more

Education & Certifications

Georgia Institute of Technology | Master of Science | Online 3.75 GPA | Dec 2022

- M.S. Computer Science. Specializing in Computational Systems

Elizabethtown College | Bachelor of Science | Elizabethtown, Pa 3.42 GPA | May 2020

- B.S. Computer Engineering, B.S. Computer Science

Secret Level Department of Defense Security Clearance