

ASHLEY CUI

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EDUCATION

Boston University College of Engineering, Boston, MA

September 2016 - May 2020

Bachelor of Science in Computer Engineering

Relevant Coursework:

Computation in Python, Applied Algorithms & Data Structures, Software Engineering,

Advanced Data Structures, Operating Systems, Cybersecurity

TECHNICAL SKILLS

Languages: Go, Python, C, C++

Miscellaneous: Containers, Git, Open-Source Contributions, Linux, REST, Jira/Agile

EXPERIENCE

Red Hat, Boston, MA

Associate Software Engineer

June 2020 – Present

- Working on Container Runtimes team: responsible for implementing new features and bugfixes on open-source container projects such as Podman and Buildah as per OCI standards
- Lead development of container secrets – a feature to improve security by injecting sensitive data into a container without committing the data to an image
- Expand userbase of Podman to include non-Linux users (focusing on MacOS) by providing infrastructure to run containers with networking inside a VM via socket activation, with native-like user experience
- Maintain open-source community relationship on projects by solving upstream issues and writing blog posts to excite the community on new features, in addition to addressing customer needs

Software Engineering Intern

May – September 2019

- Collaborated on Podman (an open source Linux container runtime) via GitHub by fixing bugs and implementing new containerization features with Go
- Packaged Podman for MacOS using Homebrew to allow for easy installation

Constant Contact, Waltham, MA

Security Research Intern (Software Engineering)

June – August 2018

- Created Splunk apps to query email logs and protect against email abuse, alleviating the need to manually search mail logs for bad actors
- Implemented HTTP server with REST endpoints to handle requests from Splunk and responses from API's
- Deployed HTTP server & Google Safe Browsing database in AWS Lambda & AWS EC2 with Go

PROJECTS

ToyOS

May 2019

- Booted x86 IA-32 based toy kernel using GRUB to detect available memory given by QEMU
- Added support for multiple preemptible threads
- Implemented Unix Filesystem 1 and keyboard driver as Linux modules using C

SonicSwype, PennApps Hackathon, University of Pennsylvania, Philadelphia, PA

January 2018

- Web-based “Tinder for Spotify” application – using Spotify’s related artists’ function to generate a custom playlist based on user’s previous listening history and swipes to “like” or “dislike” a track
- Built backend using Django, a Python web framework, and Spotify API