

Rachel Shaw

LEAD DEVOPS ENGINEER

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Overview

Former Lead DevOps Engineer for the U.S. Navy's Submarine-Launched Ballistic Missile (SLBM) program. Responsible for devising creative CI/CD solutions in support of SLBM Fire Control and Mission Planning products. Experienced Pythonista and back-end software engineer, with particular interests in GNU/Linux systems, process automation, and software resiliency.

Education

University of Virginia, School of Engineering and Applied Science

Charlottesville, VA

B.S. COMPUTER SCIENCE, *Magna Cum Laude*

August 2015 – May 2019

Rappahannock Community College

King George, VA

ASSOCIATE OF ARTS & SCIENCES, *Summa Cum Laude*

August 2011 – August 2015

Technical skills

Proficient Python, C, C++, Java, bash, GNU/Linux, LaTeX, git, Jenkins, GitLab CI/CD

Familiar Docker, x86_64, systems programming, Django, pandas

Work experience

Naval Surface Warfare Center–Dahlgren Division

Dahlgren, VA

SOFTWARE ENGINEER (DEVOPS)

January 2019 – December 2021

- Drastically shortened time to build and test SLBM Fire Control C/C++ software via CI/CD pipelines and QEMU hardware emulation, cutting development time from a matter of days to minutes.
- Ported low-level Small Computer System Interface (SCSI) systems code in C to x86_64 GNU/Linux architecture as lead developer for a data management application for removable media.
- Pioneered general-purpose CLI tools for Fire Control data analysis in Python by ingesting data from 10s of different data formats and consolidating functionality from several older, purpose-built tools.
- As information management system (IMS) technical lead, improved productivity of over 250+ users by organizing decades of siloed documentation and source code into modern, industry-standard development tools (Atlassian Confluence, Jira, GitLab, and others).

Naval Surface Warfare Center–Dahlgren Division

Dahlgren, VA

SOFTWARE ENGINEERING INTERN

May 2017 – January 2019

- Automated 100s of static analysis rules for C/C++ code by designing a replacement for an aging bespoke standards checker tool for C.
- Drafted plans for rearchitecture of mission-critical corporate intranet components, using A/B tests and user interviews to improve prototype usability.

Department of Computer Science, University of Virginia

Charlottesville, VA

LEAD CAPSTONE DEVELOPER

August 2017 – May 2018

- Designed and implemented a Django + Bootstrap-based event management platform for a local LGBTQ+ non-profit as part of a team of 7 fourth-year computer science undergraduates, allowing the non-profit to better schedule and organize community events.
- Coordinated implementation of features across other team members as project lead, ensuring all members developed cross-functional skills in full-stack web development.

Department of Computer Science, University of Virginia

Charlottesville, VA

TEACHING ASSISTANT (TA), UNDERGRADUATE

January 2016 – December 2016

- Conducted two semesters of exploratory laboratories for the department's CS 1110/1111: Introduction to Programming courses in Python, providing ~40 students per semester with a foundation in computer science principles.
- Offered personalized one-on-one mentoring and coursework support to students via office hours and online course forum presence, strengthening student and instructor's grasp of the material.