

Rachel Shaw

PLATFORM ENGINEER

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Overview

Platform Engineer (3+ YOE) with the U.S. Navy's Submarine-Launched Ballistic Missile (SLBM) program. Experienced cross-functional engineer with particular interests in Linux systems, automation, and reliability. Prior technical lead for multiple SLBM Fire Control and Mission Planning products.

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, GNU/Linux, shell scripting, Docker/containers, configuration management, Jenkins, CI/CD, git, release engineering

Familiar Java, C++, Terraform, Ansible, systems programming, computer networking, monitoring, observability, telemetry instrumentation

Work experience

Naval Surface Warfare Center–Dahlgren Division

Dahlgren, VA

SLBM DevOps ENGINEER

January 2020 – December 2021

- Defined and maintained ownership over the supported software stack, building out tooling and CI/CD capabilities to support 10s of internal Java, C, and C++ teams through technologies including Jenkins, bash, Python, GitLab, and Nexus artifact management.
- Facilitated working groups to modernize the software stack, including migration from a bespoke legacy VCS to GitLab, switching the build system to an LLVM backend, and crafting an emulated test environment, all together shortening developer cycle times from a matter of weeks to hours.
- Improved the productivity of the department's 250+ enterprise users as information management system technical lead by organizing 60+ years worth of program and software documentation into a more accessible (and search-friendly!) format.

SYSTEMS SOFTWARE ENGINEER

January 2019 – January 2020

- As maintainer for a mission-critical data management application for removable media, I wrote C code interfacing with the Linux SCSI drivers and maintained the user-facing Java GUI and JNI middleware.
- Separately, I introduced a unified log analysis tool (written in Python) for raw Fire Control data, consolidating several older, purpose-build tools to provide faster turnaround time to issues encountered in the submarine fleet.

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 re-architecture 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 and 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.

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.