

# Rachel Shaw

DEVOPS ENGINEER

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## Overview

Current 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 developer, with particular interests in process automation, infrastructure as code (IaC), and designing for reliability.

## 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** Django, pandas, Docker, x86, systems programming

## Work experience

### Naval Surface Warfare Center–Dahlgren Division

Dahlgren, VA

SOFTWARE ENGINEER (DEVOPS)

January 2019 – present

- Drastically shortened time to build and test SLBM Fire Control C/C++ software through QEMU hardware emulation and Jenkins CI pipelines, cutting development time from a matter of days to minutes.
- Pioneered a general-purpose CLI tool 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.
- Migrated decades of siloed documentation and source code into industry-standard Agile development tools like Atlassian Confluence, Jira, and GitLab as information management team lead, improving productivity for some 250+ users.
- Ported low-level Small Computer System Interface (SCSI) driver handling code in C from an x86 to x86\_64 GNU/Linux platform as lead developer for a data management application for removable media.

### 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.