## Charles Fyfe

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## Summary

Ten years experience with automation and analysis in Python. Fluent in Linux and shell scripting. Recent emphasis on DevOps and CI/CD/CT using Jenkins, Docker, and REST APIs. Comfortable mentoring interns, onboarding employees, and evangelizing new technologies.

## Experience

Cray Inc: Intern  $\rightarrow$  Engineer 3  $\rightarrow$  Engineer 4

2014-Present

- Rolled out a Continuous Testing solution for the Shasta product line. Secured VP buy-in, communicated requirements to dozens of product groups, and followed up on concerns.
- Designed a Bash/Python framework to execute tests on live mainframes. Ingested results
  into an ELK database. Forwarded failures to product owners on Slack via REST API.
- Wrote a Groovy pipeline to build, test, and distribute RPMs and Docker images in support of 100+ engineers. Illustrated pipeline best practices with annotated end-to-end examples.
- Crawled the Jenkins REST API to monitor deployments of 6 products across 27 main-frames. Aggregated metrics onto an nginx/uWSGI dashboard accessed 100+ times daily.
- Mentored three interns, two of whom were awarded extensions.
- Implemented a **Python** API for access and analysis of mainframe logs. Parsed terabytes of text to diagnose hardware failures on a \$70 million customer installation.

Special Olympics Minnesota: Volunteer Powerlifting Coach

2018–Present

- Adapted coaching strategies to each athlete's physical abilities and communication skills.
- Coordinated warm-ups, meals, and parent concerns during full-day Area and State meets.

University of Minnesota: PhD Candidate

2009-2016

- Benchmarked and optimized a wave simulation in parallel Fortran. Analyzed hundreds of gigabytes of data with Python to isolate novel patterns.
- Led laboratory exercises and tutored at-risk students individually. Coordinated between professors, graduate teaching assistants, and undergraduate tutors as Head TA.

## Education

University of Minnesota: PhD

2009-2016

- Space physics, Burlaga/Arctowski Medal Fellow

St Olaf College: BA

2005-2009

- Math (Distinction), Physics (Distinction), Magna Cum Laude