Charles Fyfe, Ph.D.

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--- Summary ---

Ten years of experience with Python and distributed Linux systems. Emphasis on CI/CD tools such as Jenkins, Docker, and REST APIs. Consistent dedication to building a stronger team through mentorship and training. Looking for a position with room to grow.

--- Experience ---

Senior Systems/Software Engineer   Hewlett Packard Enterprise, 2019–Present

- Led development of a **Python**-based monitoring framework for HPE's Cray supercomputers. Automated failure detection for **Ansible**, **Kubernetes**, and hardware configuration. Published real-time updates on Slack via **REST API**, saving dozens of hours of triage daily.
- Wrote **CI/CD pipelines** to build, test, and deploy RPMs and **Docker**-based services in support of 100+ engineers. Crawled thousands of **Git** repos via Jenkins and BitBucket APIs to validate pipeline updates against live use cases.
- Provisioned distributed resources via **Google Cloud** and **Terraform** for automated testing.
- Built **Flask**/**WSGI** microservices to ingest and serve data via **REST API**. Aggregated build, test, and installation documents in a **time series database**. Extracted actionable metrics and tailored dashboards to developer, product owner, and VP use cases.

Visiting Assistant Professor of Physics   St. Olaf College, Fall 2020

- Coached students in advanced problem solving techniques, including numerical modeling and data visualization in **Python**.
- Supervised a TA and two tutors as they provided students with additional support.

System Test Engineer   Cray Inc., 2016–2019

- Created a multithreaded **Python** package for access and analysis of system logs. Processed terabytes of text to diagnose hardware failures on a $70 million customer installation.
- Administered boots and upgrades on a 200-node **Linux** system in support of 20 engineers.
- Scraped, parsed, and analyzed boot data from thousands of nodes via **Python** and **shell scripts**. Identified performance regressions and correlated them with firmware updates.

Volunteer Powerlifting Coach   Special Olympics Minnesota, 2018–2020

- Adapted coaching strategies to each athlete's physical abilities and communication skills.

Research/Teaching Assistant   University of Minnesota, 2009-2016

- Automated parallel simulations and analyzed hundreds of gigabytes of data using **Python**.
- Instructed hundreds of college students on the fundamentals of data analysis.

--- Education ---

Ph.D. (Space Physics)   *University of Minnesota, 2016*

B.A. (Mathematics & Physics)   *St. Olaf College, 2009*