Zachary **Wieand**

Site Reliability Engineer · Software Engineer

zmwieand@gmail.com | zachwieand.com | zmwieand | zachary-wieand

Skills

- **Tools:** Kubernetes · Helm · Docker · Jenkins · GitHub Actions · Terraform
- **Programming Languages:** Python · Golang · Javascript · Bash · Java · C/C++
- **Platforms/Frameworks:** AWS · FastAPI · React.js

Work Experience

ACV Auctions

Buffalo, NY

Site Reliability Engineer III

Oct 2020 - Present

- Team lead for the development of Helm linting and testing rules. Performed Kubernetes schema validation, dependency verification, as well as custom linting rules.
- Developed a system for Horizontal Pod Autoscaling using Prometheus and KEDA. Autoscaling metrics included request/second (from Nginx) and uWSGI queue depth.
- Migrated AWS WAF components and Security Group rules into Terraform.

Site Reliability Engineer II

Apr 2019 - Oct 2020

- Built and deployed a fluentd application to all Kubernetes clusters to parse and ship logs to Splunk and NewRelic.
- Developer of a tool for the automated spin up and tear down of Kubernetes clusters and networking architecture in AWS EKS.
- Infrastructure lead for the breakout of monolithic applications into domains.
- Stood up a staging environment for deployment and performance testing. Led to a 10x reduction in deployment failure rate.
- Built an on cluster change management database. Tracks the history of changes to various Kubernetes resources on cluster.
- Developed a template repository for FastAPI projects following best code and CI/CD practices. Enabled teams to deploy to production in less than 15 minutes.
- Implemented a tool for engineers to build Helm charts for their applications based on a simple web form.
- Code owner and maintainer of a React.js site to host internal web applications for the company.
- Developed several shared libraries for teams to use from Jenkins CI/CD pipelines, i.e. creation of GitHub Releases, notifications to Slack, automated rollbacks with Helm.
- Stood up a Vault instance to replace Kubernetes Secrets and enable teams proper RBAC to manage sensitive content.

Lockheed Martin

Manassas, VA

Software Engineer Assosciate, International Submarine Programs

Aug 2017 - Mar 2019

- Created a Jenkins pipeline to provision a full virtual software development and runtime environments for Fedora Core 9 and RHEL7.4.
- Led the migration of software and operating system components from Fedora Core 9 to RHEL7.4 and from RHEL5.4 to RHEL7.4.
- Designed and implemented a data recording and playback system for future analysis of core sensor data.
- Migrated compile and development environments to containerized builds with Docker.
- Sped up the software deployment process by 30% using Ansible playbooks.
- Built a file parser to convert sigc++ API to boost signals. Saved team $60,000 of labor hours.

Google

Mountain View, CA

Software Engineer, Tools and Infrastructure Intern

May 2016 - Aug 2016

- Extended an iterative testing tool to include Java regression tests. Tool responsible for maintaining several infrastructure components which allowed engineers to run these tests 5x faster.
- Added in a test case filtering feature for even faster test run speeds.
- Fixed race conditions and other bugs to speed up the tool's release .

Google

Mountain View, CA

Engineering Practicum Intern

May 2015 - Aug 2015

- Implemented a shell script to automatically detect and repair missing test coverage for code review and submission of widely used libraries. Doubled test coverage for these libraries.
- Designed, implemented, and deployed a Java Map Reduce job to report and fix 7 types of data corruption.

Education

University at Buffalo

Buffalo, NY

B.S. in Computer Science · Minor in Mathematics

Aug 2013 - May 2017

- 3.9/4.0 GPA
- Dean's List 8 semesters