Charlie Hanacek

Seattle, WA | (206) 765-7448 | czhanacek@gmail.com | www.linkedin.com/in/czhanacek | Github: czhanacek

About Me

Senior CI engineer with five years of build and test infrastructure management experience, specializing in rapid development, cloud cost optimization, and smooth operations. Practical, creative, and data-driven engineering values. Adept at organizing and collaborating with senior engineering staff, business managers, and non-technical collaborators to see ideas through to improvements.
I'm looking for roles with a focus on merging the new with the old. For example, applying AI tools to quality assurance challenges, or modernizing legacy build systems to leverage cloud technologies.

Experience

SONOS

Senior Build Engineer **January 2024 to present**
Languages used: Python, Groovy, JavaScript, Bash

- Conducted user interviews, resource planning, threat modeling, re-scoping, project management, root cause analysis.
- Developed and maintained Github Probot NodeJS apps to power custom pull request functionality and JIRA API integration.
- Identified overspend and reduced AWS Elastic File System (EFS) costs by 98% by increasing cache efficiency and migrating to S3.
- Worked cross functionally with developers from all parts of the organization to diagnose, triage, and mitigate nightly build and test failures.
- Profiled high-frequency builds, optimized Kubernetes node configuration, and redesigned caching strategy to decrease build time by 70%, decrease CI system infrastructure cost by 35%, and eliminated most flakey build issues, leading to enhanced developer satisfaction and reduced operational cost.

Software Development Engineer in Test II **December 2022 to January 2024**

- Planned and implemented full-stack test and build artifact collector and viewer. Files stored in a S3 bucket and indexed with DynamoDB. Included uploader deployed to all build and test machines and k8s-hosted web application for devs to view artifacts.
- Implemented and led maintenance of automated system for managing dozens of mission-critical Jenkins instances on Kubernetes cluster with configuration as code, backups, and continuous deployment using Helm, Kustomize, ArgoCD, and Github.
- Upgraded Pytest test automation framework device communication protocol to increase reliability and reduce tech debt.
- Mentored two summer interns and guided them during onboarding, project planning, execution, and end-of-summer share-out.

Software Development Engineer in Test **January 2021 to December 2022**

- Contributed to cross-functional automated PR code quality gates running a targeted series of builds and tests based on file changes across pipelines spanning multiple Jenkins instances.
- Developed and hosted Docker and containerization training series to assist 75 quality developers in transition to container-based test execution.
- Collaborated with QA engineers and developers to triage test failures and resolve infrastructure issues daily.

Software Development Engineer in Test Intern **June 2020 to August 2020**

- Upgraded Python test automation framework device communication protocol from telnet to ssh to reduce tech debt and increase product security, impacting all system test operations globally. Project spanned multiple repositories and full unit test coverage and functional testing.

Civis Analytics **Chicago, IL**

Software Development Engineering Intern **June 2019 to August 2019**

- Integrated main data platform web application (Ruby on Rails) to originate automation platform events, allowing users to receive push notifications on the status of multi-hour data processing jobs. Project involved implementation of features in Ruby on Rails app as well as NodeJS automation platform microservice, including setting up CI/CD for the microservice.

Voiland College of Engineering and Architecture **Pullman, WA**

Information Technology Specialist III **August 2018 to December 2020**

- Planned and implemented centralized syslog and metrics collector with high availability RAID storage array using free and open source tools. Used Prometheus and SNMP, node, and ping Prometheus exporters plus Grafana, Graylog, and Elasticsearch to create a comprehensive log and metrics monitoring and alerting stack.
- Created and maintained system configuration using Ansible, Puppet, and Gitlab, plus continuous integration and deployment, ensuring self-documenting configuration, simple scaling and collaboration, and rapid development.
- Diagnosed, triaged, and resolved network and system issues affecting staff, faculty, and students ensuring minimal downtime and system reliability.

Education

Bachelor of Science in Computer Science, 2020
Voiland College of Engineering and Architecture
Washington State University, Pullman, WA

Languages, Frameworks, Technologies

Python, Poetry, JavaScript, Groovy, Bash, Serverless, Datadog, ELK stack, Jenkins, JIRA, Git, C#, C/C++, Ruby, Ruby on Rails, Github Actions, Kubernetes/k8s , Skaffold, Karpenter, Velero, ArgoCD, Git, Github, Gitlab, Github Actions, Gitlab CI, SAML/Okta, NodeJS, Docker, Podman, Puppet, Ansible, Artifactory, SNMP, Graylog, AWS Cloudwatch, AWS Lambda, Terraform, AWS Simple Notification Service (SNS), AWS Simple Queueing Service (SQS), AWS Elastic Kubernetes Service (EKS), Ubuntu, Debian, CentOS, Prometheus, Grafana, React Native, MQTT, Zigbee, Home Assistant

Activities and Interests

Washington State University 2023 CrimsonCode Hackathon Judge, Washington State University Linux Users' Group President 2018 and 2019.