Eric Huang

Senior Site Reliability Engineer

<u>Certified Kubernetes Administrator</u>, open-source enthusiast, and detail-oriented software engineer with expertise in automation, observability, and cloudnative solutions. Skilled in problem-solving and system optimization, aiming to enhance reliability, efficiency, and scalability.

Work Experience

Site Reliability Engineer

Engineering Dept., LINE Taiwan Limited

Dec 2022 – Present

- Taipei, Taiwan
- Optimized log collection pipelines and tuned the self-hosted Loki cluster, eliminating object storage overhead and reducing costs by 70%, while achieving a 3x increase in log ingestion performance.
- Co-maintained the organization-wide <u>internal Terraform provider Terda</u> and its community as part of a volunteer group. Pioneered Terda adoption at LINE Taiwan and actively advocated for Terraform usage.
- <u>Implemented a Grafana Alloy gateway</u> to distribute large volume client-side telemetry data sent by Faro SDK, enabling real user monitoring (RUM) and correlating frontend apps with existing observability solutions.
- Developed kustomize plugin for managing secrets in the internal KMS and secret management systems, enhancing security and compliance.
- Developed a Go SDK to wrap the successor private cloud API post-LY merger, leveraging OpenAPI schema for automatic code generation.
- Created automation tools, including a Slack workflow automation framework and GitHub Actions, to improve operational efficiency and quality.
- Designed and implemented an internal infrastructure cost calculator and dashboards, providing spending visibility and enabling cost optimization.

Senior Engineer

Intelligent Banking Division, E.SUN Bank

May 2021 - Dec 2022

- Taipei, Taiwan
- Designed and built a robust monitoring/alerting system that collected 15+ GB of metrics daily across 100+ servers.
- Managed Kubernetes administration and migration for 8 clusters (60+ nodes) with 95% and 99% SLA.
- Adopted automation tools to construct production-grade and GPU-accelerated Kubernetes clusters, contributing to upstream <u>Kubespray</u> and backporting to existing playbooks.
- Developed tools to automate daily routines, configuration management, application deployment, and system validation tasks, significantly reducing operational costs.

Projects

Rust Playground with WASM

• Delivered a full-stack solution for the <u>Rust Playground</u>, enabling interactive WebAssembly rendering in the browser and integrated it into <u>mdBook</u>.

Court Reserver

• Developed a Rust CLI program for Taipei Metropolitan court reservations, enabling concurrent reservations to avoid manual operations on apps.

- in Chen-Yi HUANG
- github.com/titaneric
- ☑ chenyihuang001@gmail.com

Skills

Programming

Python • Go • Rust • Terraform Plugin Development

Technologies

Kubernetes • Containerization • Nvidia Cloud-Native Tech • Linux SysAdmin • TCP/IP • Observability • ArgoCD

IaC, CI/CD

GitHub Actions • Terraform • Ansible

Education

MEng

Data Science

1 2018 - 2020

National Chiao Tung Univ.

BSc

2014 – 2018

Computer Science

Yuan Ze Univ.

Talks & Articles

- Grafana Alloy Best Practice @ COSCUP 2024,
- The Journey to the Kubernetes metrics @ K8s summit 2021,
- [transl.] Terraform for Verda A journey of Infrastructure as Code for our private cloud
- The Journey to the Kubernetes Networking
- Auto Differentiation
- Buddy System

Contributions

Enhanced VRL Functions and Vector Components

• vectordotdev/vrl, vectordotdev/vector

Support JSON-RPC over in Go uprobe eBPF Instrumentation

• open-telemetry/opentelemetry-ebpf-instrumentation

Reduced Redundant Calculations in Backpropagation

• pytorch/pytorch, jax-ml/jax