Eric Huang

Senior Site Reliability Engineer

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Certified Kubernetes Administrator, open-source enthusiast, and detail-oriented software engineer with expertise in automation, observability, and cloud-native 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 internal Terraform provider Terda and its community as part of a volunteer group. Pioneered Terda adoption at LINE Taiwan and actively advocated for Terraform usage.
- Implemented a Grafana Alloy gateway 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 Kubespray 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 Rust Playground, enabling interactive WebAssembly rendering in the browser and integrated it into mdBook.

Court Reserver

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

Skills

Programming
Python • Go • Rust

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

IaC, CI/CD
GitHub Actions • Terraform • Ansible

Education

MEng — *Data Science*

2018 – 2020 — National Chiao Tung Univ.

BSc — *Computer Science*

2014 – 2018 — 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