

# Eric Huang

## Site Reliability Engineer

Certified Kubernetes Administrator, open source enthusiast, and conscientious software engineer with skills in automation, observability, and cloud-native solutions. Possesses strong problem-solving abilities and a keen eye for detail, aiming to improve system reliability, observability, and efficiency.

## Work Experience

### Site Reliability Engineer *Engineering Dept., LINE Taiwan Limited*

📅 Dec 2022 – Present 📍 Taipei, Taiwan

- Co-maintained organization-wide internal Terraform provider terda, and promoted Terraform adoption and advocacy at LINE Taiwan.
- Optimized log collecting pipelines at LINE Taiwan, profiled and tuned the self-hosted Loki, **completely eliminating overhead** of object storage and **cutting down required resource by 70%**.
- Introduced Grafana Alloy and Faro SDK at LINE Taiwan, achieving end-to-end tracing, RUM, and presented the work at COSCUP 2024.
- Designed and developed automation tools such as slack-based workflow automation framework and GitHub Action to improve operational quality.
- Designed and built internal infra cost calculator, metrics snapshotter, and dashboards, providing private cloud spending visibility and optimization.

### Senior Engineer *Intelligent Banking Division, E.SUN bank*

📅 May 2021 – Dec 2022 📍 Taipei, Taiwan

- Designed & built up a robust monitoring/alerting system that collect **15+** GB metrics per day across **100+** servers.
- Experienced in Kubernetes administration & cluster and service migration for **8** cluster (**60+** nodes) with **95%** & **99%** SLA.
- Adopted automation tool to construct **production-grade** and **GPU-accelerated** k8s cluster, and contributed to upstream Kubespray & backported to existing playbook.
- Developed tools for automating process of daily routine, config management, app deployment, and system validation task, which lead to effectively reduce operational costs.

### Engineer *Computer Integration Manufacturer, tsmc*

📅 Oct 2020 – Jan 2021 📍 Hsinchu, Taiwan

## Projects

### Rust Playground with WASM

- Forked Rust Playground to render Web Assembly from compiled Rust, and managed to render them on mdBook as well.

### Court Reserver

- Rust CLI program for Taipei Metropolitan court reservation, runs in the concurrency way to avoid manual operation on APP.

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## Skills

### Programming

Python • Golang • 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.

## Articles

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

## Contributions

### Enhanced VRL functions and Vector's components

📍 [vector.dev/vrl](https://vector.dev/vrl), [vector.dev/vector](https://vector.dev/vector)

### Reduced redundant calculation in backpropagation

📍 [pytorch/pytorch](https://pytorch.org/), [jax-ml/jax](https://jax-ml.github.io/)

### Fixed Golang's map bucket iteration in eBPF

📍 [grafana/beyla](https://grafana.com/)

## Awards & Certs

- LINE Dev Governance Best Practice
- Certified Kubernetes Administrator