

# Joe (Yung-Hung) Huang

✉ yunghunghuang984@gmail.com | 🌐 hong539 | 📍 Taiwan (R.O.C) Taipei

## EXPERIENCE

### System/DevOps Engineering

Nov. 2023 – Dec. 2024

*Mending Technology CO., LTD.*

- **Cryptocurrency Exchange System** Operation/Migration/Refactoring/Backup on **AWS, On-premise** with more than **200 EC2/EKS/VM nodes** across **development, test, staging and production environments**.
  - \* Development **Infrastructure as Code** with **Pulumi** for AWS IAM/EC2/RDS/Route53...etc
  - \* Development **Automation** with **Ansible** for EC2 initialization, Java apps with docker-compose...etc
  - \* **Building Pipelines with Gitlab runners**
  - \* Building a **CI pipeline** based on **Python, Bash, gitlab runner...and so many Languages & Tools** to make Java Developers working better with their codes.
  - \* We have these **stages: build code, scan code, build image, push image, deploy to k8s**.
  - \* **The pipeline validation process**, from Maven build to Docker push, was completed within approximately **3 minutes**.
  - \* Deployment to the EKS testing environment took **less than 5 minutes** in total, with room for further optimization.
  - \* **Tech Stack:** Vue, JavaScript, PHP, Golang, Gin, Java, Spring Boot, Python, Bash, Yaml, JSON, Linux, AWS, Gitlab, Docker, Kubernetes...etc

### Site Reliability Engineering (SRE)/DevOps/Cloud engineering

Nov. 2021 – April. 2023

*CloudRock Technology Co., Ltd*

- Participated in multiple cloud deployment projects utilizing **AWS, GCP, Alibaba Cloud, CloudFlare, and other public cloud services**.
  - \* Built systems using common cloud services such as **EC2, EKS, GKE, ACL, ELB, RDS...etc**, along with self-hosted services like **Nacos, RocketMQ, Redis, etc**.
  - \* Maintained Kubernetes clusters for multiple client projects and provided optimization and troubleshooting solutions.
  - \* Assisted in building and maintaining CI/CD pipelines for client projects, including optimizing **.gitlab-ci.yml** Bash scripts for GitLab Runner, significantly reducing **cross-region network latency** issues.
  - \* Key Achievements: **replacing VM-based Nginx servers with Kubernetes' built-in ingress-nginx and implementing automated certificates renewal via ingress-nginx/Cert Manager/SSL/TLS termination at the load balancer**.
  - \* **Tech Stack:** Java, Spring Boot, Spring Cloud, Golang, PHP, JavaScript, Yaml, Prometheus, Grafana, ELK stack, AWS, GCP, Alibaba Cloud, CDNetworks, Linux, Docker, Kubernetes(GKE, EKS, ACK)...etc
- Development in a **Python Automation Project: boce-crawler**
  - \* Building a crontab task based on a **Python** program to extract network metrics from 3rd-party website and transform, load these data to MariaDB as Grafana datasource.
  - \* Because of the **data loss of our 3rd-party network monitoring API** when testing with My automation teammate's API wrapper.
  - \* Our crontab task keep running for **3 months** before we find another 3rd-party network monitoring service.
  - \* **Tech Stack:** Python, Selenium,undetected-chromedriver, pandas, SQLAlchemy, Linux, Docker, Google Chrome,MariaDB, Grafana...etc
- Participated in a **Long-term support project: Dragon**
  - \* Which is a **video streaming platform** based on a **Open Source project: SRS and Kubernetes**.
  - \* Trying to **restream live content across multiple platforms** on **server-side**.
  - \* Within this project, I've focus on building **Hybrid cloud infrastructure with GCP/Alibaba Cloud**.
  - \* **Tech Stack:** Golang, Bash, Yaml, Prometheus, Grafana, ELK stack, GCP, Alibaba Cloud, CDNetworks, Linux, Docker, Kubernetes(GKE, ACK)...etc

## PROJECTS

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### homelab

Jun. 2023 – Present

- From **CNCF's Definition**, trying to build **lightweight Hybrid Cloud infrastructure** for **enhancement of personal tech stacks, building personal apps...etc**
- **Tech Stack:** Python, Bash, Golang, Rust, JavaScript/TypeScript, HTML5, CSS, Cloudflare, AWS, Linux, Proxmox Virtual Environment, Docker, k3s cluster(Lightweight Kubernetes), \*-exporters, Prometheus, Grafana, ELK stack, Terraform, Ansible, Github Actions, Jenkins Container Registry, service mesh (linkerd), MongoDB, PostgreSQL, MySQL, InfluxDB, ... etc

### LiveTerm

May. 2023 – Present

- Building a **e-portfolio website** based on **Cveinnt/LiveTerm** to make a portal to link all my personal websites.
- **Tech Stack:** JavaScript/TypeScript, HTML5, CSS, Bash, node.js, React, Next.js, Linux, Docker, Nginx, Cloudflare...etc

### resume

Mar. 2023 – Present

- Building a **online CV website** based on **LaTeX** to record my experience, projects, education, skills.
- **Tech Stack:** LaTeX, Bash, GNU Make, Linux, Docker, Nginx, Cloudflare

### setup dev environment

Dec. 2022 – Present

- Building a **personal notes website** based on **Material for MkDocs** to render Markdown files to web pages.
- **Tech Stack:** Python, Bash, Yaml, Markdown, Github, GitHub Actions, Linux, Docker, Nginx, Cloudflare

## EDUCATION

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### National Dong Hwa University

Sep. 2016 – Jan. 2019

*Master of Science in Materials Science and Engineering*

Shoufeng, Hualien

- **Thesis:** Ultrafast Pump-probe Transient Absorption Spectroscopy of Layer-controllable Molybdenum Disulfide Films
- **Research:** Semiconductor Materials

### National Dong Hwa University

Sep. 2012 – Jun. 2016

*Bachelor of Science in Materials Science and Engineering*

Shoufeng, Hualien

- Program of Advanced Materials

## SKILLS

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**Languages:** Mandarin (native), English (professional working proficiency)

**Programming:** Python(proficient), Bash(competence), JavaScript/HTML/CSS(competence), SQL(competence)

**Frameworks:** Selenium, pandas, SQLAlchemy

**Infra:** AWS, Kubernetes, GitLab Runner, Pulumi, Ansible