

Joe (Yung-Hung) Huang

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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**: 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**.
- 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

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

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

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