Joe (Yung-Hung) Huang

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EXPERIENCE

System/Site Reliability Engineering (SRE)/DevOps Engineering   Nov. 2023 – Dec. 2024
Mending Technology CO., LTD.

- **Cryptocurrency Exchange System** on **AWS, On-premise** with more than **200 EC2/EKS/VM nodes** across **development, test, staging and production environments.**
    * Participated in **Deployment of On-premise self-managed: Kubernetes cluster via Kubeadm/MetalLB/VMware vSphere, MySQL, RocketMQ, Redis, Nacos, Harbor**...etc.
    * Participated in **the cross-AWS account service migration in a production environment.** Used **Pulumi alongside Ansible** to provision **AWS EC2 resources.**
    * **Implemented an automated provisioning workflow** for various **AWS resources (AWS IAM, EC2, Aurora MySQL, Route53...etc)** in a **staging environment** using **Pulumi with Python scripts, Ansible playbooks.**
    * Contributed to **optimizing and improving the CI pipeline** for the Java development team, providing demonstration workflows and best practices via **Gitlab CI and many other related Tools.**
    * **Tech Stack**: Vue, PHP, Golang, Gin, Java, Spring Boot, Nacos, RocketMQ, Redis, Aurora MySQL, 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

- Based on project characteristics and client requirements (e.g., **chatting and social apps, payment systems, sports data platforms, live streaming services, etc.**), assisted in system migration, deployment, and refactoring across multiple cloud environments, including **AWS, GCP, Alibaba Cloud, CloudFlare, and other public cloud services**.
    * Implemented CNCF-compliant system architectures by progressively introducing **Docker containerization, Kubernetes, and the Ingress-Nginx/Cert-Manager stack** in different phases of the system development lifecycle.
    * 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 Gitlab or Jenkins CI/CD pipelines for client projects, including optimizing **.gitlab-ci.yml** Bash scripts for GitLab Runner, significantly reducing **cross-region network latency** issues.
    * **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**.
    * Suvery CI/CD pipelines built with Gitlab webhook with **Tekton Pipelines** to **replace Gitlab Runner.**
    * **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, Terrform, 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

sauce-man   May. 2023 – Present

- Building **a discord bot** based on **Rapptz/discord.py** to make **discord app bertter to:**
- **Advanced search features for who want make some records.**
- **Fix Links Previews.**
- **Tech Stack**: Python, Bash, discord.py, fastapi, pydantic, sqlalchemy, PostgreSQL, Linux, Docker, Nginx, Cloudflare...etc

resume   Mar. 2023 – Present

- Building **a online CV website** based on **LaTeX** to record my experience, projects, education, skills.
- Render a CV file via **single HTML-CSS-JavaScript transform from PDF Source with pdf2htmlEX** or access **PDF file directly via built-in PDF viewer of browsers(Google Chrome, Brave, Firefox, Safari...etc)**
- Learning concepts of **SSR (Server-Side Rendering), CSR (Client-Side Rendering).**
- Development and Deployment CI/CD pipelines with **Bash, Docker, GitHub** to make **Proof of concept.**
- **Tech Stack**: LaTeX, pdf2htmlEX, Bash, JavaScript/TypeScript, React, Next.js, GNU Make, Github, Linux, Docker, Nginx, Cloudflare Tunnel

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