Joe (Yung-Hung) Huang

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EXPERIENCE

System / DevOps Engineer
Jun. 2025 – Present

Logic Solutions Inc.

- Designed, implemented, and maintained **scalable, reliable, and observable product system architectures** across **AWS and on-premise / hybrid environments**.
- Operated and maintained **AWS cloud infrastructure** (VPC, EC2, RDS, Load Balancers, ...etc), ensuring system stability, security, and performance for production workloads.
- Automated infrastructure provisioning and system initialization using **Infrastructure as Code (IaC)**, leveraging **Terraform, Terragrunt, Atlantis, Packer, and Ansible** to build reusable AMIs and standardized service stacks.
- Built and maintained **CI/CD pipelines** using **Jenkins and GitLab**, including authoring and maintaining **Groovy scripts** to support build, deployment, and operational workflows.
- Performed **root cause analysis and troubleshooting** for service errors, performance issues, and system anomalies using **Linux CLI tools, metrics, and logs** across cloud and on-premise environments.
- Extended system **observability and reliability** by integrating **Prometheus, Grafana, Alertmanager, Consul, and custom exporters**, enabling proactive monitoring and incident response.
- Supported deployment, upgrades, and operational maintenance of product systems deployed in **customer environments**, including **AWS, Cloudflare, and hybrid on-premise setups**.
- Reviewed an existing **GitOps-based Kubernetes architecture** on **AWS EKS** and, based on **product scale, operational cost, and system maturity**, led the **decommissioning of EKS node groups** and the retirement of related subsystems (**Istio, Karpenter, Argo CD**, etc.) to reduce operational overhead and technical debt.

System/Site Reliability Engineering (SRE)/DevOps Engineering
Nov. 2023 – Dec. 2024

Mending Technology CO., LTD.

- Supported a **cryptocurrency exchange platform** on AWS and on-premise infrastructure, focusing on making large-scale systems more controllable through **environment isolation**, **infrastructure automation**, and **reliability-oriented practices** across development, test, staging, and production environments.
    * Built a Docker container-based **toolbox** for **troubleshooting and automation development** across **AWS and on-premise environments**, enabling team members to quickly **set up standardized workflows**.
    * Worked with the team to **build an on-premise development environment** using **VMware vSphere, Kubernetes (kubeadm), and MetalLB**, reducing dependency on a shared AWS environment and improving developer productivity and environment isolation.
    * Implemented **Infrastructure as Code (IaC)** using **Pulumi (Python) and Ansible** to automate infrastructure changes in the **production environment** and provision a **staging environment** for QA, SRE, and DevOps teams.
    * Participated in **SRE/DevOps roadmap discussions** focused on improving system controllability, including Docker image hardening, observability enhancements, and automation of incident response workflows, aiming to reduce reliance on individual experience when diagnosing production issues.
    * Overall, my work focused on **turning complex cryptocurrency exchange infrastructure** into systems that are **easier to reason about, operate, and recover from failures**.

Site Reliability Engineering (SRE)/DevOps/Cloud engineering
Nov. 2021 – April. 2023

CloudRock Technology Co., Ltd

- Worked from a Cloud to SRE/DevOps engineer in a consulting environment, supporting **multiple client systems** (e.g., social/chat applications, payment systems, sports data platforms, and live streaming services) by designing, migrating, and operating systems across **AWS, GCP, Alibaba Cloud, and Cloudflare**.
    * Designed and evolved **CNCF-aligned system architectures** by introducing **Docker containerization, Kubernetes orchestration, and Ingress-Nginx + cert-manager** across different project phases.
    * Built and operated cloud-native systems using managed services (**EC2, EKS, GKE, ELB, RDS**) and self-hosted middleware (**Nacos, RocketMQ, Redis**), balancing cost, performance, and operational complexity.

    * Maintained and troubleshot **multiple Kubernetes clusters** for client environments, providing performance tuning, deployment optimization, and incident-level support.
    * Built and maintained **GitLab CI and Jenkins pipelines** for client projects, including optimization of **.gitlab-ci.yml** and Bash-based GitLab Runner workflows, reducing cross-region CI execution latency and improving pipeline stability.
- Developed a **Python-based automation project (boce-crawler)** to collect external network metrics and provide a reliable monitoring data source.
    * Implemented a **scheduled data collection pipeline** using Python and crontab to extract metrics from third-party websites, transform the data, and load it into **MariaDB** as a **Grafana data source**.
    * Designed a temporary **fallback monitoring solution** to mitigate data loss caused by instability of a third-party monitoring API, ensuring **continuous metric availability** for approximately three months until a replacement service was adopted.

IoT Bootcamp (Full-Stack & System Fundamentals Training) Jan. 2021 – May. 2021

Industrial Technology Research Institute (ITRI)

- Completed an intensive hands-on training program covering **web development fundamentals, system programming, Linux environments, networking basics, and IoT system integration**.
    * Implemented basic **front-end web pages using pure HTML, CSS, and JavaScript**, followed by backend development with **PHP and MySQL** for data persistence and integration.
    * Built a local **Linux (Ubuntu) development environment using VirtualBox** and practiced foundational **Linux system programming concepts**, including process management, file systems, and networking fundamentals.
    * Acted as a technical lead during team-based projects by introducing **Git and GitLab** for source code management, enabling collaborative development and version control workflows.
    * Led the implementation of an **IoT monitoring system (IndoorAirBox)** using **Raspberry Pi and ESP8266**, focusing on temperature and humidity data collection with available course resources.

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/k0s cluster(Lightweight Kubernetes), *-exporters, Prometheus, Grafana, ELK stack, Terrform, Ansible, Github Actions, Jenkins Container Registry, service mesh (linkerd), MongoDB, PostgreSQL, MySQL, InfluxDB, ... 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 **Serverless services via Cloudflare Workers and Pages**
- Development and Deployment CI/CD pipelines with **Bash, Docker, GitHub, Cloudflare Pages** to make **Proof of concept.**
- **Tech Stack**: LaTeX, pdf2htmlEX, Bash, JavaScript/TypeScript, node.js, React, Next.js, GNU Make, Github, Linux, Docker, Nginx, Cloudflare Workers and Pages

setup devops 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 Languages: Python(proficient), Bash(competence), SQL(competence), Golang(beginner), Rust(beginner)
Version Control: git
Frameworks: Django, FastAPI, Selenium, pandas, SQLAlchemy
Operating system: Linux(proficient), macOS(beginner), Windows(beginner)
Continuous Integration(CI) & Continuous Delivery(CD):GitLab Runner, Github Actions, Jenkins, Tekton Pipelines, Argo CD
Streaming & Messaging: Apache RocketMQ, RabbitMQ
Scheduling & Orchestration: Kubernetes(EKS, GKE, ACK, k0s...etc), KEDA
Service Proxy: NGINX, HAProxy, MetalLB, Envoy
Service Mesh: Consul
Coordination & Service Discovery: Apache Zookeeper, Nacos, Netflix Eureka
Container Registry: Harbor
Automation & Configuration: Ansible, Atlantis, Terraform, Terragrunt, Pulumi, Ansible
Cloud Providers: AWS, Google Cloud, Alibaba Cloud, Cloudflare
Certification: AWS Certified Solutions Architect Associate, AWS Certified Cloud Practitioner