

# Joe (Yung-Hung) Huang

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## EXPERIENCE

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### System/DevOps Engineer

Jun. 2025 – Current

*Logic Solutions Inc.*

- **DevOps Systems** on **AWS, On-premise**
  - \* **Troubleshooting services error, bugs, performance...etc** on **AWS (VPC/EC2/RDS...etc)**, **On-premise** with **Linux CLI tools** and related metrics, logs
  - \* **Building Quantum Product Systems** on **AWS (VPC/EC2/RDS...etc)** with **Gitlab/Terraform/Terragrunt/AtlantisTerraform Pull Request Automation/Packer/Ansible**
  - \* **Maintaining CI/CD pipelines** with **Jenkins/Groovy scripts/Gitlab**
  - \* **Extend Observability** with **Grafana/Prometheus/\*-exporters/Alertmanager/Consul**

### 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 troubleshoot **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.
- Participated in a long-term support project (**Dragon**), a **video streaming platform** built on the open-source **SRS** project and Kubernetes.
  - \* Contributed to building a **hybrid cloud infrastructure** across **GCP and Alibaba Cloud**, supporting server-side live stream restreaming to multiple platforms.
  - \* Evaluated and prototyped CI/CD workflows using **GitLab webhooks and Tekton Pipelines** as an alternative to GitLab Runner, exploring cloud-native pipeline execution models.

## 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

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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/k0s cluster(Lightweight Kubernetes), \*-exporters, Prometheus, Grafana, ELK stack, Terraform, 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

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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 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