

Yung-Hung Huang

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EXPERIENCE

Systems architecture

Jan. 2021 – Present

IOT System design

- IndoorAirBox

Web System design

- Dragon
- Web-crawler

System migration

- Virtualized deployment to Kubernetes

Cloud Computing

Jan. 2021 – Present

Operation

- Amazon Web Services(AWS)
- Google Cloud Platform(GCP)
- Microsoft Azure
- Alibaba Cloud
- CloudFlare

Kubernetes

Jan. 2022 – Present

Admin

- Maintain operations for **k8s Cluster**
- Troubleshooting: **pod crashloopbackoff, network, I/O problems(Race Condition, OOM Out of memory)...etc**
- Subsystem research and deploy: **Ingress-NGINX, Cert-manager, Prometheus, Grafana, Redis, RabbitMQ, Elasticsearch, Fluentbit, Kibana, Gitlab runner, Tekton, KubeSphere, EMQX, Nacos, RocketMQ, ZooKeeper**

PROJECTS

Dragon

- Building a system based on distributed model with multi k8s Clusters which provides **streaming services**
- Based on an open source project: **SRS(Simple Realtime Server)**, we create backend-API with golang as Webhook to extend the SRS server features and frontend interface via React + Next.js.
- **Languages & Tools:** Kubernetes, k6, kubectl-graph, Tekton, Apache JMeter, Doxygen, C++, ffmpeg, Golang, go-callvis, go-swagger, Alibaba Cloud, GCP, CDN network, JavaScript, Node.js

Web-crawler

- Building a **web-service monitor/alarm system** such as Datadog,UptimeRobot...etc
- Because of the data loss of our third-party monitoring API, I develop a **backend service** to collect data on third-party network monitor system and push those data to our MariaDB for grafana datasource.
- **Languages & Tools:** Python, Requests, Beautiful Soup, Selenium,undetected-chromedriver, pandas, SQLAlchemy, MariaDB, crontab, Grafana

IndoorAirBox

- Building a system based on a Client-server model which monitors **air-quality, temperature and humidity**
- **Languages & Tools:** Raspberry Pi, NodeMCU, C/C++, JavaScript/HTML/CSS, Bootstrap, PHP, phpMyAdmin, MariaDB, Apache HTTP Server

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

SKILLS

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

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

Frameworks : Selenium, pandas, SQLAlchemy

Infra : Kubernetes, GitLab Runner, Tekton