Yung-Hung Huang

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EXPERIENCE

Site Reliability Engineering (SRE)/DevOps/Cloud engineering

Jan. 2021 – April. 2023

Cloud Computing Operation

- Amazon Web Services(AWS): VPC/VPC Peering/ELB/EC2/RDS/S3/ECR/EKS/ElastiCache for Redis...etc
- Google Cloud Platform(GCP): VPC/Cloud NAT/Cloud Load Balancing/Compute Engine/GKE/Artifact Registry/Cloud Storage/Cloud SQL/Memorystore for Redis...etc
- Alibaba Cloud: VPC/EIP/SLB/CDN/DCDN/ECS/ACK/ACR/EBS/OSS/ApsaraDB RDS/DTS/ApsaraMQ for RocketMQ/ApsaraVideo Live...etc
- CloudFlare: DNS/WAF/Tunnel...etc
- MongoDB Atlas

System Operation/Migration/Refactoring

- Maintain system documentation with Google Docs/Google Drive/Markdown/GitLab/Mermaid/Backstage
- Create CI/CD pipelines based on GitLab runner/Tekton in Kubernetes cluster
- Migrate deploy architecture from node.js/php-fpm/Java spring microservices to Kubernetes
- Migrate deploy architecture from VMs to Docker/Kubernetes
- Migration/Refactoring Infrastructure from Alibaba Cloud to AWS
- Backup for Infrastructure

Kubernetes 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, ElastAlert 2, Gitlab runner, Tekton, KubeSphere, EMQX, Nacos, RocketMQ, ZooKeeper, ProxySQL,**

Web Services Development

- boce-crawler: **Linux crontab task** with **Python** script running **headless-browser automation**
- Dragon: **streaming platform** based on **SRS project and Kubernetes**

PROJECTS

boce-crawler

- Because of the **data loss of our third-party monitoring API** when testing with My automation teammate's API wrapper, I need to develope a **crontab task** with **Python** under **Server-side** to extract data on the third-party network monitor dashboard, transform those data, load these data to our MariaDB Database as our grafana datasource.
- **Languages & Tools**: crontab, Python, concurrent.futures, Requests, Beautiful Soup, Selenium, undetected-chromedriver, pandas, SQLAlchemy, docker, MariaDB, Grafana

Dragon

- The main purpose is that "One live stream from clent But push multiple destinations from server-side"
- 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 design 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, C++, ffmpeg, Golang, go-callvis, go-swagger, Alibaba Cloud, GCP, CDN network, JavaScript, Node.js, Docker engine

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