

Johnny Chang

BACKEND ENGINEER

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“Anything worth doing is and will be incredibly hard.”

Summary

Web application developer with 6+ years of prior experience, specializing in backend development. Have done a variety of work from simple content serving websites to modern C10K live streaming platform. Comfortable with rapid development cycles and mature development processes. Always looking for challenges to face, problems to solve, and chances to learn new technical skills/tools. Interested in building rock solid backend services that provides value to millions daily.

Skills

Programming Languages	Python, Javascript
Infrastructure Related	GCP, GKE, Kubernetes, Docker, Github Actions, Linux Shell Scripting, OpenTelemetry
Backend	Flask, MongoDB, Redis, Django (REST framework), PostgreSQL, Celery, RabbitMQ, Elasticsearch
Spoken Languages	Chinese, American English

Experience

SWAG

BACKEND/DEVOPS MANAGER

Taipei, Taiwan
Aug. 2023 - Nov. 2025

- Managed day to day feature developments/bug triages/emergencies for the SWAG backend team and DevOps team.
- Improved team development velocity by hiring and enabling members for both teams.
- Introduced automation to the deployment process, improve application update velocity from less than 3 times per day to over 10+ per day.
- Reduced cloud costs by 20% by application optimizations and leveraging sensible discounts while not hurting the customer experience.
- Reduced critical incidents from twice per month to less than 1 per quarter by leveraging sensible scale-up strategy without increasing the cost.
- Implemented monitoring/alerts/on-call infrastructure with focus on SLA/SLO/SLI.
- Reduce reports on livestream playbacks of low latency live streaming by migrating legacy HTTP based streaming to WebRTC.

SENIOR BACKEND ENGINEER

Jan. 2022 - Aug. 2023

- Decreased latency of livestreams from 12 seconds to 2 seconds with in-house LLDASH/LLHLS.
- Led assigned feature developments from start to finish.
- Implemented in-house VoD encoding with various DRM systems (Fairplay/Widevine/PlayReady).

BACKEND ENGINEER

Jun. 2020 - Jan. 2022

- Maintained/Developed features on a Flask based live streaming service.
- Developed client-server realtime communication with extensive usage of websockets.
- Hands on experience with video content encoding/encrypting pipelines. Also optimized the pipeline for efficiency and latency.
- Gained basic knowledge of live content delivery through rtmp stream endpoints.

Unnotech

Taipei, Taiwan
Jun. 2019 - Jun. 2020

BACKEND ENGINEER

- Maintained/Developed features of several Django microservices in a team of 15 engineers.
- Rebuilt odds synchronization system. Reducing processing time from 10+ minutes to under 30 seconds. System supported 100+ executions daily.
- Built and deployed a microservice that issues interest to users every minute. Can serve 10k active users with very basic resources.
- Refactored ancient code that was written when better options were not available (eg: bulk_update in Django ORM)
- Learned how to deploy Kubernetes microservices on GKE using Helm.
- Optimized 50+ slow endpoints with various techniques such as profiling, object prefetching, algorithm rewrites, migrating data types...etc

Pi Softwares

Kaohsiung, Taiwan
Mar. 2018 - May. 2019

WEB DEVELOPER

- Designed, implemented and deployed several websites in Python with Django.
- Built fully automated CI/CD pipeline with self hosted git server and DroneCI for code updates. Reduced deployment time by 70%
- Built and deployed a highly scalable distributed web crawling system with Scrapy, Ansible and a bunch of single board computers.
- Implemented data ETL pipeline with Kafka, BeautifulSoup, SQLAlchemy.
- Automated boring daily chores (SSL certificate renew, daily database backups) by combining shell scripts and cron jobs.

Education

National Dong Hwa University

B.S. IN COMPUTER SCIENCE AND INFORMATION ENGINEERING

Hualien, Taiwan
Sept. 2013 - June. 2017