Chen Chuan Chang

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EDUCATION

Texas A&M University

M.S. in Computer Science, GPA: 3.75/4.0

National Chiao Tung University

B.S. in Computer Science

College Station, TX

Aug 2021 - Dec 2022

Hsinchu, Taiwan

Sep 2013 - Jan 2018

TECHNICAL SKILLS

Languages: Java, Golang, Python, C/C++, SQL, PHP, Ruby, TypeScript

Design & Frameworks: REST, GraphQL, gRPC, Laravel, Django

Developer Tools: AWS, Docker, Kubernetes, Terraform, Git, Linux, Shell, MySQL, Redis, Elasticsearch, MongoDB

EXPERIENCE

Amazon Seattle, WA

Software Engineer Intern

May 2022 - Aug 2022

- Optimized internal filtering service to reduce ad click-invalidation rate by 10% in production by integrating real-time data with 2 existing systems.
- Conducted integration tests using Java, covering data from streaming messages and DynamoDB databases.
- Constructed infrastructure as code using **CDK** and **TypeScript** on AWS.
- Managed production deployments, including service dependency verification, monitoring, and rollout planning.

KKStream Limited Taipei, Taiwan

Software Engineer

Aug 2018 - Jun 2021

[Internal Microservices with **Kubernetes**]

- Designed account service using **OAuth 2.0** for managing user authentication and resource permission.
- Developed gRPC services for video metadata, playback history, and content ranking using MongoDB.
- Executed routine tasks to synchronize metadata through APIs using multithreading in Golang.

[Video Streaming REST APIs]

- Implemented a REST backend server in Golang for video browsing, playback, and permission control.
- Constructed server infrastructure with AWS Cloudformation and Terraform.
- Streamlined CI/CD workflow and revamped deployment with **Docker**.
- Built a CMS server with role-based access control to manage metadata and monitor video transcoding status.
- Designed Kibana platform for log visualization and business analytics through Fluentd and ElasticSearch.

[Legacy System Upgrade Plan]

- Coordinated with a team of 10 in Agile methodology to plan and execute upgrades for a legacy PHP backend system with 2M+ active monthly users.
- Conducted load testing on the APIs at a scale of 100K QPS to evaluate the stability of the upgraded system.
- Reduced CPU usage up to 50% through the analysis of algorithms bottlenecks and code refactoring.
- Improved API response speed by 25% through the review of MySQL slow queries and the optimization of cache usage efficiency.

Perfect Corp.

Taipei, Taiwan

Software Developer Intern

Jul 2016 - Aug 2016

- Lowered routine testing workload for developers by developing **Android** integration testing using **Espresso** and UI Automator for main page browsing and photo editing.
- Built a code analyzer in **Java** to generate code templates and check for duplicate code.

Projects

Distributed Web Crawler

Aug 2021 - Oct 2021

- Developed a distributed web crawler in C++ to parse webpages using windows socket with support for over 5000 concurrent threads.
- Built a parsing report to evaluate success rate, maximum crawling speed, and number of target links.