Chen Chuan Chang

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EDUCATION

Texas A&M University   College Station, TX
M.S. in Computer Science, GPA: 3.75/4.0   *Aug 2021 – Dec 2022*

National Chiao Tung University   Hsinchu, Taiwan
B.S. in Computer Science   *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.