

Kao Chung Yi

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CAREER OBJECTIVE

Experienced Software Engineer specializing in Golang, with a strong passion for optimizing microservices for performance and resource efficiency. Skilled in developing observability and debugging tools using eBPF.

Shopee

Senior Software Engineer, Tech Lead, Singapore, Feb. 2021 - Current

- **Design and Lead Dynamic Instrument Solution**

The solution reduced MTTR by 60% during troubleshooting without the need for service redeployment and enabled function-level tracing.

- **Design and Lead Profiling Solution for Performance Optimization**

Successfully launched an ad-hoc/continuous profiling platform for a microservice environment, enabling product-line services to achieve a 10-20% reduction in resource costs through optimized decision-making.

- **Led the design of an SLO platform to foster the SRE Culture**

The SLO system helps product-line services objectively assess system performance and balance the prioritization of business and technical tasks.

- **Assisted in the transition of Marketplace services from Monolithic Architecture to a Microservices Architecture.**

Maintained the coreserver, analyzing code splitting for microservices creation. Collaborated with the SRE team to implement a traffic observation solution, successfully distributing the main traffic across various sub-services. Collaborated on cross-functional projects, including shadow traffic, split by market.

Rakuten Inc

Senior Software Engineer (Rakuten Books), Tokyo, Aug 2018 - Jan. 2021

- **Develop Order Process (After Checkout Flow) System Integration**

Designed and integrated the order process service with third-party merchants to support drop shipping business

- **Launch a Micro Service for Warehouse Expansion Project**

Launched a regional warehouse service for local inventory and logistics management

- **Enhanced System Performance and Development Efficiency**

1. Optimized legacy database query execution time by 20% and improved index usage using SQL explain plans and slow query logs

2. Developed a PHP cache extension that reduced front-end product loading time from 4 seconds to 200 milliseconds (95%) by monitoring source files and leveraging browser cache (ETag) mechanisms for hash code generation.

Military Service

Serve in the Military, Taiwan, Dec. 2016 - Feb. 2018

Mstar Semiconductor (MediaTek)

Senior Embedded Software Engineer, Taiwan, Nov. 2015 - Nov. 2016

- **Android TV Stack Development**

Design and provide Android TV Framework for Amazon Smart TV project.

- **Development Android TV Service**

Designed android service with driver team and maintained the android TV ecosystem.

AWARDS

- **Published at the IEEE VLSI-DAT Conference**, *EcoSim:Sensor-Node Simulator*
- **Qualcomm Award, MobileHeros**, *Book Finder*
- **Excellent Price in ICT Innovative Contest**, *Touch Projector*

EDUCATION

National Tsing Hua University(NTH), Taiwan

Master of Science in Computer Science and Engineering

Sept. 2015