

Uyo(Yuyang) Ko(Huang)

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Objective

Seeking full time senior software engineer position(6 YOE).

Work Experience

Indeed

Tokyo Japan

Software Engineer, Recommendation backend team

November 2021–Present

- Designed and implemented the candidate recommendation system for specific jobs across 8 different countries.
- Led a sub-team to improve multiple backend services from scalability and stability perspective.

Google

Munich Germany

Software Engineer, Android auto team

August 2020–November 2021

- Designed and implemented a next generation phone to vehicle connectivity library.
- Designed and implemented a next generation projecting library for Android phones.
- Led a sub-team to redesign the threading model of phone to car communication library.

Goldman Sachs

Tokyo Japan

Software Engineer, Equity trading platform development team

February 2018–August 2020

- Designed and implemented key components for a next generation sequencer based ultra-low latency trading platform.
- Worked as a site reliability engineer to provide L3 support for the electronic trading platform.
- Led a sub-team to improve the supportability of the newly built trading platform.

Sony

Tokyo Japan

Software Engineer, Base system research and development team

April 2016–February 2018

- Designed and implemented a secure application framework for embedding Linux in the Sony robot dog(Aibo).
- Linux kernel/driver development and performance tuning for the Sony robot dog(Aibo).

Selected Projects

Candidate recommendation system backend development, @Indeed

Java, Kotlin

Recommends best matched candidates for specific open job positions.

November 2021–Present

- Integrated the inference server with Amazon DynamoDB as a permanent backend storage, which increased the supported candidate count by 3x from the storage perspective.
- Introduced rate limiter and multi-layer caching to the job feature service, which enlarged the supported traffic volume by 14x.
- Migrated gRPC and HTTPs based legacy APIs to GraphQL based APIs to allow client to customize their queries which further reduced 50% of unnecessary downstream queries.

Android Auto and AAOS software development, @Google

C/C++, Android Java

Next-generation phone to vehicle connectivity and projection library.

August 2020–November 2021

- Designed and implemented a next generation phone to vehicle connectivity library which provided a unified communication layer. This library manages USB, Wi-Fi and Bluetooth (RFCOMM, BLE) as underlying transports and makes low level connection details agnostic to the application layer.
- Improved the connectivity library stability and extensibility by redesigning the threading model.
- Designed and implemented an application-level projecting library which supports phone to vehicle projection for android phones.

Electronic trading platform development, @Goldman Sachs

Java,C/C++,Python

Next-generation ultra-low latency trading platform.

February 2018–July 2020

- Designed and implemented a next generation sequencer based ultra-low latency electrical trading platform, which provided less than 150 microsecond end-to-end latency for synthetic market access.
- Improved the supportability of the trading platform by introducing Elasticsearch based log collecting/analyzing service.
- Provided L3 support for the platform as a site reliability engineer.

Linux kernel and system security software development, @Sony

Linux kernel and security software development for Sony robot dog.

C/C++,Python,Go

April 2016–February 2018

- Customized the Linux kernel and driver for the Sony robot dog(Aibo).
- Reduced the kernel crash rate by around 30% and improved the kernel boot time by around 40%.
- Designed and implemented a runC based containerization software for embedded Linux platforms with limited resources.

Skills

- **Programming language:** C/C++, Java, Kotlin, Python, Android Java/Kotlin, Go
- **Cloud platform:** AWS, Google Cloud.
- **Distribute system:** Kafka, Elasticsearch, Hadoop, Spark, Redis.
- **Database:** MySQL, DynamoDB.
- **Embedded system:** Android system, Linux kernel, Linux system.
- **Containerization:** runC/Docker, Linux namespace, seccomp, cgroups.
- **Java Framework:** Spring MVC, Spring Boot, Netflix DGS.
- **Other technologies:** gRPC, GraphQL, Rate limiter, Zero GC low latency Java Development.
- **Languages:** Chinese(native), English(fluent), Japanese(fluent), German(beginner)

Education

The University of Tokyo

M.S. in Information and Communication Engineering
Graduate School of Information Science and Technology

Tokyo Japan

April 2014–March 2016

Dong Hua University

B.Eng. in Electrical Engineering and Automation
Department of Electrical Engineering

Shanghai China

September 2009–July 2013