

# Uyo(Yuyang) Ko(Huang)

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## Objective

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

## Work Experience

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### 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 vehicle-to-phone 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

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### 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 permanent a 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 car connectivity library which provided a unified phone to vehicle communication layer. This library manages USB, Wi-Fi and Bluetooth (RFCOMM, BLE) as underline transports and makes low level connection details agnostic to the application layer.
- Improved the connectivity library stability and extensibility by redesigned the threading model.
- Designed and implemented an application-level projecting library which support 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**

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- **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**

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#### **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*