

# Uyo(Yuyang) Ko(Huang)

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## Work Experience

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

## Work Experience

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### Indeed

Tokyo Japan

Software Engineer

November 2021–Present

- Worked in the backend team for the candidate matching system (team of approx. 12).
- Designed and developed the candidate recommendation system for employer, supporting 8 different countries.
- Led a sub-team to improve multiple backend service scalability and stability.

### Google

Munich Germany

Software Engineer

August 2020–November 2021

- Worked in Munich Android Auto Development Team (team of approx. 8).
- Built the next generation vehicle-to-phone connectivity system software.
- Built next generation projecting solution for Android phones.
- Led a sub-team to redesign the threading model of phone to car communication library.

### Goldman Sachs

Tokyo Japan

Software Engineer, Associate

February 2018–August 2020

- Worked in the Equity Engineering Group (team of approx. 8).
- Built key components for a next generation sequencer based ultra-low latency trading platform.
- Worked as an 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

Linux System Research and Development Engineer

April 2016–February 2018

- Worked in the Base System R&D Department, Linux Kernel R&D Section (team of approx. 6).
- Designed and developed a secure application framework for embedding Linux in next-generation Internet of Things devices and robots.
- Linux kernel/driver development for both current and next-generation embedded system platform.

## Selected Projects

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### Candidate matching system backend development.

Java, Kotlin

Candidate matching system backend development supporting 8 countries.

November 2021–Present

**Techniques:** Performance analysis and distributed system development.

- Integrated the inference server with Amazon DynamoDB as permanent backend storage which increased the supported candidate count by 3x from the storage perspective.
- Applied rate limiter and multi-layer caching which resolved the performance bottleneck and supported 14x more traffic volume.

### Android Auto and AAOS software development

C/C++, Java

Next-generation phone to vehicle connectivity solution.

August 2020–November 2021

**Techniques:** Android development, performance analysis, system service development.

- Designed and implemented next generation connectivity system software which provided a unified phone to vehicle communication layer. This software manages USB, Wi-Fi and Bluetooth(RFComm, BLE) as underline transports and makes low level connection details agnostic to the application used.
- Designed and implemented an application level projecting solution for phone to vehicle projection.

### Electronic trading platform development

Java, C/C++, Slang, Python

Next-generation ultra-low latency trading platform.

February 2018–July 2020

**Techniques:** Performance analysis, algorithm design and implementation and distributed system development

- Designed and implemented a next generation sequencer based ultra-low latency electrical trading platform, which provided less than 150 micro second end to end latency for synthetic market access.
- Provided L3 support for the platform.

#### **Linux kernel and system security software development.**

**C/C++,Python,Golang**

*Linux kernel and security software development for next-generation platform.*

*April 2016–February 2018*

**Techniques:** Embedded system development, Linux kernel development and containerization

- Responsible for Linux kernel and driver development for next generation platform.
- Reduced the kernel crash rate by around 30% and reduced the kernel boot time by around 40%.
- Designed and implemented containerization software for embedded Linux platform with limited resources.
- Coordinated container software functioning with other system middleware.

## **Skills**

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- Algorithm design, analysis and implementation.
- Distributed system design, implementation.
- Linux kernel development, system software development, embedded platform development.
- Linux system administration.
- Android system and application development.
- In-depth experience and knowledge of Linux security mechanism: discretionary access control, capabilities, namespace, seccomp, cgroups.
- In-depth experience and knowledge of container software: runC and Docker.
- In-depth experience and knowledge of networking stack development.
- In-depth experience and knowledge of Open Source software: Spring, Kafka, Elastic Search, Hadoop, Spark.
- Experience using AWS and Google Cloud.
- Programming languages: C/C++, Java, Kotlin, Python, Assembly, Golang, Ruby/Rails.
- 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*