

# YIRAN XU

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## WORK EXPERIENCE

### 777 Partners

Software Engineer

Newport Beach, CA

May 2022 – Present

Order Management System (OMS): A ticketing system for multiple airline companies, such as Flair and Bonza.

- Developed over 30 features using **Java** and **Spring Boot** for a microservice-based backend, following **Agile methodology**.
- Designed tables in a PostgreSQL database for relational information mapping with Hibernate ORM.
- Utilized the **Neo4j graph database** for flight information to increase flight searching speed by 60%.
- Reduced the destination search time by up to 40% by caching flight information queries with **Hazelcast caching**.
- Designed schedule tasks with **Spring scheduler** for ancillary/booking entity features and passengers over 3000+ flights.
- Utilized **Docker** and **Kubernetes** for deploying and managing applications to maintain the **distribution system**.

Document Management System (DMS): A system providing email/SMS support for OMS users.

- Implemented a text message publisher with **Optus SMS suite** to send messages to users.
- Created and modified email templates in **MailChimp** sent from the system to identify different booking processes.
- Merged **APN/Firebase notification service** to publish notification events in **Spring Boot** to handle notification message.
- Combined **Apple/Android pay** in the OMS payment gateway with the **WorldPay API** Integration.
- Harnessed **Grafana** log to analyze and visualize logs can provide valuable insights into the behavior and performance.

### USC Prof. Ajitesh Srivastava's Lab

Web Developer

Los Angeles, CA

Aug 2021 – Dec 2021

- Implemented client-side user interface with **React.js** and **React hooks**.
- Maintained backend services with **Django** and using **GitHub** to fetch infection information.
- Created data visualization with **Nivo.js** and **Leaflet.js** to picture users' data categorized by location.

### Go-Well Electrical Technology Co, Ltd.

Software Engineer Intern

Shanghai, China

Jul 2019 – Sept 2019

- Fulfilled data visualization using **Matplotlib** for China International Industry Fair in the Big Data platform.
- Applied **Principal Component Analysis** with **Python** to analyze manufacturing process data.
- Utilized the combination of software systems and hardware devices to build a big-data application with "Industry 4.0" practical methods.

## PROJECTS

### Airbnb-clone Platform (Java)

May 2021 – Jul 2021

- Employed **Spring Boot** as backend and created **REST API**.
- Utilized **Amazon S3** buckets as data layer storage by connecting it with **MySQL** database.
- Implemented backend API with **MyBatis** generator to generate class API supported by **Swagger UI**.
- Integrated **MySQL** database with **Redis** as cache middleware to store bitmap data in the service layer.
- Reduced the pressure of queries for databases by appending the service interface to Redis.
- Created a webpage UI modeled after Airbnb with **React.js** and **Tailwind CSS**.
- Implemented certification using **Spring Security** to transfer the data with **JavaScript Web Token**.

## EDUCATION

### University of Southern California

M.S. in Electrical and Computer Engineering | GPA: 3.5/4.0

Los Angeles, CA

Aug 2020 – May 2022

Coursework: Java Programming, Database, Algorithm, Computer Networking, Random Processing, Information Theory

### University of California, Irvine

B.S. in Electrical Engineering (Digital Signal Processing Specialization) | GPA: 3.5/4.0

Irvine, CA

Sept 2016 – Jun 2020

Coursework: C Programming, Operating System, Assembly language

## SKILLS

Languages: Java, JavaScript, Python, HTML5/CSS, Tailwind CSS, Sass, TypeScript

Data Management: MySQL, PostgreSQL, NoSQL/MongoDB, Redis, Hazelcast, GraphQL, Neo4j

Backend: Spring Boot, Hibernate, Spring MVC, Spring Cloud, Spring Data, Java Persistence API, AWS, Flask, Node.js, Git

Frontend/App Development/DevOps: React.js, Angular, Android Studio, Docker, Kubernetes