# Kevin Jaewoo Lee

## **SUMMARY**

Hello I'm Kevin, I'm a dedicated software engineer, having a strong passion for designing and building scalable platforms. With a keen focus on creating various applications, developing robust systems and products that improve efficiency and enhance user experience.

## **PROJECT**

# **Ticket Booking Web Service**

- Developed a highly consistent ticket-booking application using DynamoDB with Node.js in a serverless environment with Lambda and API Gateway
- Implemented presigned URLs enables to securely upload images directly to S3, reducing average TTFB from 600.7 ms to 30.2 ms, achieving a 94.5% improvement.
- Created a VPC endpoint and connected it with a Lambda function to continuously update using Postman, and integrated Elasticsearch through a NAT Gateway.

# **UCSD Course Selection Project**

- Developed a user registration service using React.js and Firebase for initial user database storage.
- Integrated with MongoDB, enabling user data, course selection, and chatroom service to interact and manage, allowing users to register for courses and communicate within the corresponding course.
- Designed a real-time chat service using WebSockets, enabling seamless communication between users enrolled in the same course.

#### Multi-Client Chat Server

- Developed a chat-server in C language using socket programming and custom HTTP request handling, adding features such as posting message, reacting, resetting chat history, and editing the message.
- Implemented URL parsing and decoding to securely process query parameters such as userName, Message, and userId.
- Designed RESTful endpoints leveraging low-level system calls for efficient request-response handling while ensuring robustness by managing error.

#### Work experience

## Math & Engineering Tutor

08/2022 - 12/2023

Diablo Valley College

- Provided tutoring for a comprehensive range of mathematics course, including Calculus III, Discrete Mathematics, Linear Algebra, and Differential Equations.
- Integrated principles of linear algebra into computer science contexts, such as algorithm optimization and computer graphics.
- Demonstrated the practical applications of general matrix principles in solving real-world problem and improving computational methods.

## TECHNICAL SKILLS

Language: C++, C, JavaScript, Python, React.js, Node.js, HTML, CSS,

Technologies: Elastic Search, MySQL, Express, Websocket, Firebase, MongoDB, openCV, Vercel

AWS: Lambda, DynamoDB, S3, Cloudfront, VPC, Open Search

### **EDUCATION**

# University of California San Diego

B.S in Computer Science & Software Engineering

09/2024 - 05/2026

Diablo Valley College

GPA: 3.95 08/2022 - 05/2024