# 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.

#### Movie Recommendation AI

- Designed and implemented a recommendation AI model using cosine similarity and content-based filtering.
- Built an interactive UI with Streamlit for selecting movies and visualizing 10 movie recommendations' title and images, integrating various information.
- Utilized TF-IDF vectorization and CountVectorizer to manage and process over 5,000 movies and 20,978 unique text features using scikit-learn tools

## 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: TMBD API, Scikit-learn, NoSQL, MySQL, Express, Websocket, Firebase, openCV, Vercel

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