Taeyoon Kim

(530)215-8853 | Davis, CA | taeyoon0997@gmail.com | LinkdIn | Portfolios

EXPERIENCE

Full stack Developer Dec 2024 – Jun 2025
HugYourSkin (Contract) *Remote*
- Built a full-featured web application from scratch for a high-traffic seasonal pop-up event.
- Developed dynamic UI components using React, Three.js, and TypeScript, enabling real-time 3D avatar customization and ID card.
- Designed scalable serverless backend with Firebase Functions and Google Cloud, reducing server response time by 40%.
- Integrated OAuth 2.0 login with existing user platforms, improving onboarding speed by 35%.
- Developed a role-based admin dashboard that enabled designers and managers to easily manage user-generated ID cards and custom assets, streamlining content workflows and saving 40 hours of manual work per week.
- Worked cross-functionally with designers to design event-specific interfaces, increasing user interaction time and driving stronger engagement during the event.

V2X Radio / Simulation Engineer Sep 2024 – Jul 2025
UC Davis EcoCAR, Connected and Autonomous Vehicle Team *Davis, CA*
- Built real-time autonomous simulation systems using MATLAB, dSPACE, and RTMaps in an Agile research environment.
- Engineered UDP-based communication protocols for V2X data sharing, enabling seamless hardware/software integration.
- Collaborated cross-functionally with controls, perception, and software teams, ensuring accurate and efficient data flow between systems.

EDUCATION

B.S. in Computer Science, *University of California, Davis* Jun 2024

Associate's in Computer Science, *De Anza College* Aug 2019 - May 2022

Product Design, *ArtCenter College of Design* Aug 2015 - May 2016

PROJECTS

Sharavel | *Next.js, Spring Boot, PostgreSQL* Mar 2025 – Present
- Developed a scalable travel social platform using RESTful APIs, serving content to a TypeScript frontend with real-time feedback for 500K+ users.
- Designed a relational PostgreSQL database schema with complex queries supporting features like trip cloning, nested comments, and following.
- Integrated Google Maps API to allow users to build and visualize daily trip itineraries on an interactive map, improving spatial planning and user experience.
- Implemented and managed secure, scalable file storage solutions using AWS S3, including pre-signed URLs for direct user uploads and optimized content delivery for media (photos, videos) associated with trips and locations.
- Secured the application with JWT and OAuth 2.0, ensuring robust session and user authentication.

"F1-Tenth" Autonomous Race Car Team | *C++, Python, ROS2, SLAM, Jetson Nano* Jan 2024 – Jun 2024
- Implemented key SLAM, path planning, and obstacle avoidance algorithms for a real-time robotic platform.
- Boosted obstacle avoidance accuracy by 30% by combining gap-following with dynamic decision logic for optimal route selection.
- Led debugging efforts using simulation environments and real hardware to isolate software bottlenecks and improve performance.

SKILLS

Languages: C/C++, Java, TypeScript, JavaScript, Python
Frontend / Backend: React, Next.js, Three.js. Tailwindcss, Spring Boot, Firebase, Node.js
Database: PostgreSQL, Firestore, AWS S3
Tools: Git, GitHub, Google Cloud, AWS, dSPACE, RTMaps
Courses: Operating Systems, Modern Programming, Software Engineering, Machine Learning, AI Introduction, Computer Networks, Computer Security, Classical Physics, Statistic Probability