Taeyoon Kim

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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.
- Automated backend data processing workflows using Firebase Functions and GCP, optimizing system performance and 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	$\mathrm{Aug}\ 2015\ \text{-}\ \mathrm{May}\ 2016$

Projects

Sharavel | Next.js, Spring Boot, PostgreSQL

Mar 2025 – Present

- Developed a scalable travel social platform RESTful APIs, serving content to a TypeScript frontend with real-time feedback for 500K+ users.
- Engineered data models and SQL queries for PostgreSQL to support high-volume user-generated content, optimizing query speed and supporting real-time data analytics.
- Integrated Google Maps API to allow users to build and visualize daily trip itineraries on an interactive map, improving spatial planning and user experience.
- Developed secure, scalable file storage architecture using AWS S3 with direct user uploads and optimized CDN integration for efficient delivery of trip and location media assets.

"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.
- Tuned real-time data interpretation and decision-making logic from sensor inputs (LiDAR), improving detection accuracy by 30% through algorithmic optimization.
- 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
Tools	Git, GitHub, Google Cloud, AWS, dSPACE, RTMaps
Data Analysis	SQL, Excel (pivot, formulas), Python (pandas, matplotlib), MATLAB
Systems & Simulation	ROS2, RTMaps, dSPACE
Courses	Operating Systems, Modern Programming, Software Engineering, Machine Learning, AI
	Introduction, Computer Networks, Computer Security, Statistic Probability