Darren Shen

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EDUCATION

San Jose State University   **Graduation: December 2027**
B.S. Computer Engineering, GPA: 3.9/4.0
- **Select Coursework**: Calculus, Discrete Math, C Programming, Data Structures & Algorithms

EXPERIENCE

SJSU College of Engineering   **Aug. 2024 – Current**
Undergraduate Research Assistant
- Contributed to open-source project deployed in Ukraine to provide offline regions with internet-like access via Android
- Performed end-to-end testing across Android clients, transport, and server, reducing manual test cycles by 25%
- Integrated message counters into K-9 Mail to track sent/received bundles, increasing offline testing efficiency by 30%
- Fixed a K-9 Mail login bug with a Kotlin-based retry mechanism, improving successful login rates by 40%
- Developed a Kotlin Multiplatform (KMP) app to test iOS and Android communication protocols
- Built offline communication applications using Java, WifiDirect, Spring Boot, and gRPC

San Jose State University   **Jun. 2025 – Aug. 2025**
Software Engineering Intern
- Built an RFID card management system for room access using MongoDB, Node.js, Express.js, React, and TailwindCSS, supporting 100+ users
- Stored card bytes with hashing and salting using the bcrypt library, generating aliases for cards for easy reference
- Created a real-time card activity monitor with Server-Sent Events (SSEs), improving debugging efficiency by 30%
- Deployed the website with Docker, minifying the React code and serving static content with Nginx

The Software & Computer Engineering Society   **Feb. 2025 – Current**
Software Engineering Intern
- Programmed embedded firmware for GPIO control and ADC-based temperature sensing on a custom six-winged drone
- Tested and integrated sensors using the STM32F411CEU6 and STM32DISCOVERY boards
- Collaborated with a team of 3 on hardware integration and sensor testing to ensure reliable PCB-based system performance

Road2 Education Foundation   **Apr. 2023 – May 2024**
Robotics Engineering Intern
- Designed robotic mechanisms in KiCad to enhance functionality and streamline part sourcing
- Supported planning and technical setup for a Google-sponsored robotics tournament with UC Irvine

PROJECTS

QuakeSafe | *React Native, FastAPI, Amazon S3, Supabase (PostgreSQL), Claude, Groq*
- Deployed an AI-powered computer vision application that analyzes earthquake risk from photos of city infrastructure
- Implemented a Groq-based AI chatbot that simulates an earthquake expert to deliver real-time safety guidance
- Developed an image analysis pipeline with Claude to interpret visuals and generate contextual responses
- Built a cross-platform app using React Native, FastAPI, Amazon S3, Supabase (PostgreSQL)

Syll.ai | *Next.js, FastAPI, Tailwind, Vercel, Supabase (PostgreSQL)*
- Created an AI platform that processes syllabus PDFs, summarizes key course info using a language model, and generates a personalized dashboard with course logistics and grades
- Built a real-time Python pipeline with GeminiAPI to extract information from unstructured PDFs
- Developed a web app with FastAPI, Next.js, Tailwind, Vercel, and Supabase (PostgreSQL)

SKILLS

Languages: Java, JavaScript, TypeScript, Python, C, MATLAB, SQL, Kotlin
Frameworks: React.js, Next.js, FastAPI, Spring Boot, Tailwind CSS, gRPC, Android SDK, Node.js, Express.js
Technologies: Supabase (PostgreSQL), Amazon S3, Vercel, GitHub, Docker, MongoDB, Postman