Daniel Zhou

510-323-5487 | daniel.jieru.zhou@gmail.com | linkedin.com/in/daniel-jieru-zhou | danielzhou.org

SUMMARY

Motivated programmer with expertise in C++, web development, and electrical system integration. Strong problem-solving, communication, and active listening skills. Eager to learn new technologies and collaborate effectively to deliver high-quality, user-focused solutions.

EDUCATION

University of California, Los Angeles June 2027
Bachelor of Science in Computer Science and Engineering GPA **3.98**/4.0
Minor: Bioinformatics

Relevant Coursework: Algorithms and Data Structures (CS32), Computer Architecture and Assembly (CS33), Design and Analysis of Algorithms (CS180), Software Construction (CS35L), Operating Systems (CS111), Theory of Computing (CS181)

SKILLS

Languages: HTML, CSS, JavaScript, C++, Python, Java, Kotlin
Frameworks/Tools: React/Next.js, MongoDB, TailwindCSS, Sharetribe, Fusion 360
Hardware: PCB Assembly, PCB Design, Schematic Design, Soldering

HIGHLIGHTED EXPERIENCES AND PROJECTS

Leechy (Rental Marketplace) 07/2025-present
Software Engineering Intern
- Architected and developed a full-featured Android rental marketplace app from scratch using Jetpack Compose and MVVM architecture, integrating 50+ Kotlin modules.
- Built advanced map-based search with Mapbox SDK, featuring a custom clustering algorithm to dynamically group 200+ listings by zoom level and screen bounds, cutting API calls by ~70% with intelligent caching.
- Engineered a multi-step listing creation flow, responsive UI/UX components, and optimized navigation for tablets and phones across multiple screen densities.
- Developed location-aware features with Google Places API, real-time geocoding, and user location tracking, along with a photo management system supporting 12-image uploads and multipart processing.

BruinMovies: A UCLA Movie-Sharing and Discussion Platform 12/2024
Developed using MongoDB, React/Next.js, HTML, CSS, TailwindCSS
- Secure Authentication & Access: Implemented JWT-based authentication, bcrypt-hashed passwords, and email verification via Nodemailer, restricting access to authenticated users.
- Real-Time Watchlist Updates: Built a MongoDB-backed system using Mongoose's find & updateOne, enabling seamless add/remove actions with instant UI feedback and atomic updates.
- Scalable Data & Profiles: Designed an API-driven backend to manage user data, enforce input constraints, and generate avatars via Dicebear, using secure POST API calls.

LEADERSHIP AND EXTRACURRICULAR ACTIVITIES

Rocket Project, Los Angeles, CA 09/2023-present
Electrical Ground Support Equipment Lead / Controls Lead
- Collaborated with interdisciplinary teams to integrate electrical systems with propulsion hardware, launch procedures, and software infrastructure, ensuring seamless operation and cross-platform compatibility.
- Led EGSE development for Prometheus and Ares rocket teams by designing, implementing, and testing ground control and data collection systems with custom PCBs.
- Developed Prometheus' first wireless communication system, pioneering a new system architecture.
- Designed and tested Ares' throttle system (CMFV) by selecting key components and overseeing controls.
- Leading development of a closed-loop rocket engine throttling system, integrating simulation-based PID control with hardware testing for precise and reliable propellant flow regulation.

Creative Labs, Los Angeles, CA 09/2024-06/2025
Frontend Web Developer Lead
- Spearheaded a team of 3 frontend developers to develop a gamified mobile app using React Native, enabling users to learn coding through interactive, animated interfaces.
- Designed and implemented frontend features with a focus on user engagement, backend compatibility, and development best practices.