

Daniel Zhou

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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

Bachelor of Science in Computer Science and Engineering
Minor: Bioinformatics

June 2027
GPA **3.99/4.0**

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

SKILLS

Languages: HTML, CSS, JavaScript, C++, Java, Python

Frameworks/Tools: React/Next.js, MongoDB, TailwindCSS

Hardware: PCB Assembly, PCB Design, Soldering

HIGHLIGHTED EXPERIENCE AND PROJECTS

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.

Marble Quest Game

03/2024

Developed using C++

- Engineered a large-scale game architecture with extensive header and cpp file management, showcasing strong OOP and systems design skills.
- Developed complex gameplay systems (points, health, lives, ammo, levels), demonstrating proficiency in interactive mechanics and scalable code.
- Designed behaviors for multiple enemy types, showcasing problem-solving skills and game logic development.

LEADERSHIP AND EXTRACURRICULAR ACTIVITIES

Rocket Project, Los Angeles, CA

09/2023-present

Electrical Ground Support Equipment Lead

- Collaborated with interdisciplinary teams to integrate electrical systems with propulsion hardware, launch procedures, and software infrastructure, ensuring system operation and compatibility across platforms.
- Led EGSE development for Prometheus and Ares rocket teams by designing, implementing, and testing ground control and data collection systems with custom PCBs and designs.
- Developed Prometheus' first wireless communication system, pioneering innovative system architecture.
- Currently designing and integrating Ares' first inflight throttle system (CMFV) by selecting key components and overseeing control systems.

Creative Labs, Los Angeles, CA

09/2024-present

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.
- Implemented a systematic approach to track and resolve challenges within the development lifecycle, leading to a significant average reduction of issue resolution time and enhancing team productivity.
- Designed and implemented frontend features with a focus on user engagement, backend compatibility, and development best practices.