

Camerin Lee

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Education

University of Southern California, Viterbi School Of Engineering | Los Angeles, CA
Bachelors of Science, Computer Science
GPA: 3.5

August 2024 - Present

Relevant Coursework: Data Structures, Algorithms, Computer Systems, Principles of Software Engineering

Experience

Systems Testing Intern | Los Angeles Department of Water and Power

August 2025 - Present

- Coordinated in-person end-to-end testing for new web and backend features, triaging 100+ defects and reducing average bug-fix turnaround by 25%.
- Collaborated with software engineers to reproduce, isolate, and debug issues across staging environments.

Undergraduate Research Assistant – Full-Stack Development | USC ICT

June 2025 - August 2025

- Designed and deployed a full-stack web platform (React, TypeScript, PHP, MySQL, AWS EC2) supporting 50+ concurrent users for real-time video/audio capture
- Built backend infrastructure to coordinate client events, data capture, and asynchronous processing.

Research Intern – Superconductor Logic Design | University of Southern California (USC)

January 2025 - June 2025

- Built Python automation tooling to generate, validate, and optimize performance-critical RSFQ logic cells
- Debugged and optimized cell generation pipeline, increasing library coverage from ~30 to 50+ unique cell types
- Reduced manual layout and verification time by ~50% through automation and tooling improvements.

NSF REU Research Fellow | Purdue University | CISTAR NSF Engineering Research

May 2024 - August 2024

- Implemented a large-scale stochastic optimization system in Python (Pyomo, Pandas) modeling renewable energy systems with 10k+ decision variables.
- Drafted and presented a research poster based on my model and results to 150+ researchers at Purdue University

Cybersecurity Intern | City of Los Angeles | City Hall East

June 2023 - May 2024

- Developed Python automation scripts to parse, classify, and triage malicious emails, improving incident response time by 30%.
- Led live cybersecurity awareness sessions for 300+ employees to promote cybersecurity practices
- Coordinated city-wide cybersecurity training programs to ensure development across various departments.

Projects

TopTrait | Full-Stack Roommate-Matching Web Application

October 2025

Backend Engineer — Spring Boot, Supabase Postgres, REST APIs

- Built the entire backend system, designing 20+ REST APIs and implementing a layered Controller–Service–Repository architecture to support profiles, matching, and real-time data access
- Engineered a scalable PostgreSQL schema with 15+ normalized fields and wrote versioned SQL migrations.
- Enhanced the matching algorithm by introducing 5 additional lifestyle-scoring attributes, improving compatibility accuracy by up to 40%
- Developed real-time, bidirectional messaging using WebSockets, enabling concurrent chat delivery across active user sessions

Skills

- **Programming Languages:** Python, C/C++, Java
- **Systems & Infrastructure:** Distributed Systems, Linux, REST APIs, WebSockets, Multithreading
- **Platforms & Tools:** Docker, AWS, Git, PostgreSQL, SQL