

EDUCATION

University of Southern California - Los Angeles, California

August 2021-May 2025

Cumulative GPA: 4.0

Viterbi School of Engineering

Bachelor of Science, Computer Science

Dornsife College of Letters, Arts, and Sciences

Bachelor of Science, Applied and Computational Mathematics

Honors: Dean's List, Half-Tuition Merit Scholarship

Relevant Skills: Rust, C, C++, Java, Python, JavaScript, TypeScript, HTML, CSS, XML, Node.js Next.js, React.js, React Native, MATLAB, R, Firebase, MySQL, Git, Docker, Maven, Gradle, SpringBoot, Android Studio, GCP, AWS, CDN

Relevant Coursework: Operating Systems, Computer Networking, Object Oriented Programming, Algorithms, Software Engineering, Computer Systems, Artificial Intelligence, Machine Learning, Numerical Methods, Real Analysis, Probability

RELEVANT EXPERIENCE

Fastly - San Francisco, California

Software Engineering Intern (Rust)

May - August 2024

- Designed and implemented internal tool for investigating customer reported issues by reproducing them consistently.
- Modified cache daemon architecture to implement a command for capturing configurable subsets of incoming requests.
- Developed and built new program to replay captured requests to CDN servers prepopulated with relevant internal state.

University of Southern California - Los Angeles, California

Course Producer - Software Development

August 2023 - Present

- Guide 300+ students through unfamiliar material by directing labs, providing targeted instruction during office hours.
- Mentor 20 students per semester through full stack application development and testing with waterfall methodology.

Part of Computer Science

Backend Engineer

Fall 2023

- Built dynamic memory allocator achieving over 100% throughput and 93% utilization of standard C library.
- Designed architecture, managed data pipelines for tour-planner using Android Studio, Google Maps, and Firebase.

Part of Applied and Computational Mathematics

Mathematical LaTeX Documentation Specialist

Fall 2022 - Present

- Written 500+ pages of rigorous mathematical proofs in statistics, machine learning, real analysis, computing theory.
- Volunteer note taker for fundamental concepts of analysis, LiveTeXing about 6 pages of notes per lecture.

Chess Engine (C, Python)

December 2023

- Searches up to 10 million moves per second by leveraging bitmaps, piece square tables, null move pruning, lazy SMP with a global transposition table, a global PV table, and alpha beta search with quiescence and smart move ordering.
- Implements UCI protocol to play online as a Lichess Bot account, earning a bullet rating of 2175, blitz rating of 2033.

LofiRain LLC - Los Angeles, California

Software Engineer (React Native, Firebase, GCP)

May 2023 - April 2024

- Developed 5-star mobile AI platform enabling users to create and share personalized bots, receiving 500+ downloads.
- Boosted download rate 10% by integrating LLMs hosted with GCP to expand target audience, enhance accessibility.
- Improved subscription profit margin from -30% to +15% by analyzing expenditure data to redesign pricing scheme.

Trojan Technology Solutions (TTS) - Los Angeles, California

TTS Website (HTML, CSS, JavaScript)

March - June 2023

- Managed six developers through design and implementation of a comprehensive web platform to enhance outreach.
- Provide potential clients and students with a central hub for learning about the team, our vision, and our achievements.

LEADERSHIP & INVOLVEMENT

Trojan Technology Solutions

Co-Founder, Vice President of Technology

January 2023 - Present

- Organized twelve students passionate about expanding access to powerful technology into formal student organization.
- Directly responsible for overseeing thorough design, timely delivery, and quality assurance of all technology solutions.

Effective Altruism

Treasurer

August 2023-Present

- Manage \$22,000 annual budget, employing data-driven methodologies to maximize impact of fund distribution.