Emerson Kahle

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EDUCATION

University of Southern California - Los Angeles, California   August 2021-May 2025
Bachelor of Science, Computer Science; Bachelor of Science, Applied and Computational Mathematics
- Presidential Scholar (half-tuition merit scholarship)   ● GPA: 4.00/4.00

Relevant Coursework:
- Software Development, Algorithms & Computing Theory, Software Engineering, Computer Systems, Probability Theory, Mathematical Statistics, Theory of Numbers, Mathematics of Machine Learning

Manchester Essex Regional High School - Manchester, Massachusetts   August 2017-May 2021
- Valedictorian of the Class of 2021   ● National Merit Scholar

EXPERIENCE

University of Southern California - Los Angeles, California   August 2023 - Present
Course Producer - Software Development
- Guide students through unfamiliar material by directing labs, providing targeted instruction during office hours.
- Mentor student groups through design, implementation, and testing processes of waterfall development.
- Enhance remote lecture engagement by addressing student queries in real-time.

LofiRain LLC - Los Angeles, California   May 2023 - Present
Software Engineer
- Develop mobile AI platform using agile methodologies, enabling the creation and sharing of personalized bots.
- Enhance platform accessibility by integrating open-source LLMs hosted on cloud infrastructure.
- Ensure seamless backend and frontend data synchronization using the MobXState tree.

Boston College Infant & Child Cognition Lab - Remote   June 2020-August 2020
Research Assistant
- Investigated cognitive and visual traits in adolescents and infants by designing trial stimuli, conducting trials, recording, encoding, and analyzing trial data.

PROJECTS

Chess Engine (C)   December 2023
- Leverages bitmaps, piece square tables, null move pruning, lazy SMP with a global transposition table, and alpha beta with quiescence and smart move ordering to search up to 10 million moves per second.
- Utilizes UCI protocol to play online as a Lichess Bot account: Bullet Rating: 2175; Blitz Rating: 2033;
- Provides custom game options to limit RAM demand and number of SMP threads to fit user needs.

Travel App (Android Studio, Java, XML, GoogleMaps SDK, Firebase)   October - December 2023
- Managed team of three developers during design, implementation, testing, and revision of mobile travel planner.
- Integrated Firebase and Google Maps SDK to seamlessly generate and store realistic travel routes for user tours.

Trojan Tech Solutions Website (HTML, CSS, JavaScript)   March - June 2023
- Spearheaded development of club website that highlights team activities, facilitates client and student applications, and communicates the team's vision.

INVOLVEMENT

Trojan Tech Solutions - *Co-Founder, Vice President of Technology*   January 2023 - Present
- Led the creation and operation of a pro-bono tech consulting club.
- Oversee tech solution design, development, integration, and quality assurance.

Effective Altruism - *Treasurer*   August 2023-Present
- Manage $22,000 annual budget, employing data-driven methodologies to maximize impact of fund distribution.

SKILLS

- C, C++, Java, Python, JavaScript, TypeScript, HTML, CSS, XML, Node JS, Next JS, React Native, React JS, MATLAB, R, Firebase, MySQL, Git/GitHub, Docker, Maven, Gradle, SpringBoot, Android Studio