Vihan Raj

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EDUCATION:

University of Southern California   **Los Angeles, CA**
Viterbi School of Engineering | Bachelor of Science: Computer Science   May 2024
- Academic Honors: Viterbi Dean's Honor List
- Relevant Coursework: Data Structures, Software Development (Java, JavaScript, SQL, HTML, CSS), Full Stack Web Development (JS, SQL, HTML, CSS, Bootstrap), Software Engineering (Java, Android app development), Intro to Internetworking, Intro to Computer Systems, Video Game Programming (C++), Intro to Artificial Intelligence

WORK EXPERIENCE:

Productiv Inc   **Palo Alto, CA**
Software Engineer Intern – Full Stack   May 2023 – August 2023
- Added contract data corruption detection and change limiting to ensure data security for 90+ customers
- Created new UI components, developed SCIM endpoints, and extended existing user permissions structures to allow for customizable permissions management in product and with Okta.
- Relevant technology: NodeJS, Vue, JavaScript, AWS, Confluence, Jira, Git, Typescript, Jest, Cypress.

Haven   **Los Angeles, CA**
Full Stack Engineer   January 2023 – April 2023
- Founded a startup with three other USC students aimed at simplifying design and supply process for home renovations. Winner of USC TroyLabs DEMO 2023 pitch competition with a prize of $4500
- Relevant technology: NextJS, Tailwind CSS, Supabase (Storage & Postgres DB), Git.

Productiv Inc.   **Palo Alto, CA**
Software Engineer Intern – Full Stack   June 2022 – December 2022
- Developed a new integration with Fyle to pull in and parse expenses leveraging REST APIs and OAuth2. Standardized expense structure and usage for hundreds of thousands of expenses
- Implemented contract data change detection and validation alerting deployed to 100+ customers
- Relevant technology: NodeJS, Vue, JavaScript, AWS, Confluence, Jira, Git, Jest, Cypress.

PROJECTS:

Raspberry PI Audio Hub (C++, Python)
- Built and coded a device using a raspberry pi to act as a music routing hub between Spotify connect, Bluetooth, and an analog input from a vinyl player.

Portal (C++, SDL)
- Simplified remake of the popular game developed by Valve. Features five levels with a custom physics engine.

MotionMuse (NextJS, Tailwind CSS)
- Built a web-app with two teammates during the LA Hacks hackathon to provide dance and motion teaching using TensorFlow pose estimation.

COMMUNITY PARTICIPATION:

USC Racing   **Los Angeles, CA**
Electronics Team Member   September 2021 – December 2022
- Implementation of a new dashboard, live telemetry, and a newly designed Power Distribution Module (PDM).
- Primarily responsible for writing the software for the Teensy on the PDM, a controller which determines the distribution of power to the car's peripherals based on sensor measurements.

USC Theta Tau   **Los Angeles, CA**
Member | Social Chair   November 2021 – Present | May 2022 – December 2022, May 2023 - Present
- Theta Tau is the nation's oldest and largest professional engineering society, aimed at the development of its members through the pillars of service, professionalism, and brotherhood.

SKILLS + INTERESTS

Languages & Software: C++, Java, JavaScript, Python, Typescript, Vue, Vuex, AWS, NodeJS, Git, Docker, Postman, Tailwind CSS, NextJS, HTML, CSS, Jira, Confluence
Other Skills & Interests: Hindi, Bangla, Saxophone, Piano, Music history, Volleyball, Cricket, Cryptocurrency