

Parmvir Singh

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Technical Skills

Languages: JavaScript, Python, TypeScript, HTML, CSS

Frameworks/Databases: React, Node.js, TypeScript, Express.js, PostgreSQL

Developer Tools: Git, VSCode, Docker, pytest, Agile

Professional Experience

Software Engineer

January 2023 – Present

HCL Tech | Google Nest

Sacramento, CA

- Led critical incident response, conducting root cause analysis with Python diagnostics and Buganizer analytics to reduce application crash rates by 30% and boost customer satisfaction to 95%.
- Designed and deployed high-performance RESTful APIs (Node.js, Python, OAuth2) for secure Nest app data integration, achieving <100ms response times under peak load (10K+ req/sec) to enhance system reliability.
- Engineered scalable backend data pipelines for Google Nest devices (GCP, BigQuery), automating data extraction and cutting engineering reporting time by 40% while enhancing system observability.
- Revamped web application front-end (React, TypeScript) to improve page responsiveness by 60% (LCP, FID) and increase user completion rates in critical Nest setup flows.

i18n Program Manager

January 2022 – January 2023

HCL Tech | Google Home

Sacramento, CA

- Scaled internationalization programs for Google Home's i18n team, ensuring product excellence and user trust globally across 5 product launches and 3 GHx platform experiences.
- Drove end-to-end international readiness for 7 New Product Introductions (NPIs), leading global testing and software validation across Google Home devices and developer platforms.
- Orchestrated cross-functional collaboration across engineering, QA (EngProd), product, and localization teams, streamlining coordination for 12 global feature rollouts to achieve on-time delivery.
- Designed and established the central quality review process for the i18n program, creating a framework that proactively identified and resolved 20+ critical blockers and accelerated release cycles by 15%.
- Contributed subject matter expertise on localization quality and testing strategy, improving the efficiency and reliability of global launches by 20% across app, web, and developer-facing services.

Embedded Systems Engineer

October 2020 – January 2022

Network Sound

Sacramento, CA

- Designed and implemented full-stack web solutions for embedded system control using Django, React, and PostgreSQL, with REST APIs facilitating seamless data exchange, ultimately enhancing user satisfaction and system engagement.
- Developed core backend functionalities in C/C++ for real-time analog-to-digital conversion and complex audio system control logic, ensuring reliability through rigorous unit testing and debugging protocols.
- Programmed a custom GUI using Windows API in C/C++, reducing test execution time by 45 seconds per test and boosting testing efficiency by 20% across development teams.
- Implemented robust programming best practices in embedded system development, leveraging RTOS on ARM Cortex microcontrollers to reduce code-related bugs by 30% over 12 months.

Selected Projects

Trinity | Express.js, React, TypeScript, PostgreSQL, Docker, Gemini API, Tailwind CSS

May 2025

- Developed a full-stack budgeting application using Express.js (TypeScript) and React (TypeScript) with Tailwind CSS, enabling users to efficiently categorize spending (Wants, Needs, Savings) and manage personal finances.
- Engineered secure backend APIs and PostgreSQL database for transaction logging and user data, while integrating the Gemini API to categorize transactions, streamlining financial tracking automatically.
- Containerized the application with Docker to ensure consistent development and deployment, supporting a robust and scalable financial management platform.

Education

California State University, Sacramento | *Bachelor of Science in Computer Engineering*

May 2020

MIT Schwarzman College of Computing | *Data Science and Machine Learning Certificate*

June 2023

Full Stack Web Development Bootcamp, Dr. Angela Yu

July 2024