

Jay Patil

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PROFESSIONAL SUMMARY

Software Engineer with 4 years of experience building scalable cloud-native applications, specializing in robust backend infrastructure, full-stack development, and integrating applied AI/ML workflows.

TECHNICAL SKILLS

Languages: Python, Java, C, C++, C#, JavaScript, TypeScript, SQL, NoSQL

Frameworks & Libraries: LangChain, TensorFlow, React.js, .NET, Spring Boot, Spring Batch, ASP.NET Core

Tools & DevOps: Ansible, Docker, Kubernetes, Terraform, Jenkins, Kafka

Cloud & Databases: AWS, Google Cloud Platform (GCP), Azure, Firebase, CI/CD

EXPERIENCE

Software developer: Full Stack and UI

Jun 2025 – Sep 2025

Santa Clara University

Santa Clara, CA

- Engineered a finetuned OpenAI RAG chatbot for the Provost's office, improving context accuracy by 15% and search time by 50%.
- Built an interactive fellowships portal using Firebase and Azure SQL DB, improving data accessibility and search performance by 30%.
- Enhanced the Off-Campus Living website's searchability and WCAG accessibility using TerminalFour, ReactJS, and HTML.

ECC Lab Research Assistant

Jan 2025 – Sep 2025

Santa Clara University

Santa Clara, CA

- Analyzed 300+ student feedback entries, surfacing grading fairness concerns and influencing curriculum changes.
- Built an Ansible tool to automate Linux/MariaDB user provisioning, enabling 1-click bulk creation and cutting onboarding to minutes.

Software Engineer – (EV and Full Stack)

Mar 2022 – Aug 2024

Ador Powertron

- Led development of intelligent EV charging systems for CCS chargers, building React.js frontends and OCPP 1.6/OpenAPI backends.
- Implemented a C# EV emulator and architected dynamic load balancing, reducing testing cycles by 25% and optimizing average charge time by 60%.
- Constructed REST APIs and integrated OCPP with a React/TypeScript frontend for HMI screens.
- Created SMTP-NTCIP full-stack IoT software for remote highway signage (VMS) control, reducing traffic incidents by 90%.

KEY PROJECTS

Distributed Telemetry Engine | *Java, Spring Boot, Kafka, Redis, GCP, Kubernetes*

- Architected a scalable microservices engine, integrating Kafka and Redis to reduce data retrieval latency by 60%.
- Automated CI/CD pipelines via Jenkins and provisioned GCP infrastructure using Kubernetes and Terraform.

Pulse-Fi | *C++, Python, Azure IoT Hub*

- Developed a dual-ESP32 contactless heartbeat detection system using real-time FFT algorithms and telemetry streaming.

PRManager | *LangChain, FAISS, AWS Lambda, Gemini API*

- Built a RAG-powered PR reviewer delivering AI-based vulnerability summaries, accelerating review cycles via GitHub/Slack APIs.

EDUCATION

Santa Clara University

Master of Science - Computer Science and Engineering

Santa Clara, CA

Sep 2024 – Jun 2026

MIT Art Design & Technology

Bachelor of Technology - Computer Science and Engineering

May 2018 – Aug 2022

PUBLICATIONS

- **Framework for Cloud-Based Messaging System Using MQTT (IEEE, 2020):** Designed scalable AWS IoT solution for two-way device connections using MQTT, published in ACTHPA'22.
- **Development of a Comparison Based Medicine Purchasing System:** Developed a system to compare medicine prices across platforms, optimizing affordability.

ACHIEVEMENTS

- **Adobe Systems Hackathon:** 1st Place, Best Developer Feedback.
- **Ador Powertron:** Best Junior Developer for leading EV feature development with measurable impact.