

Smit Patel

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EDUCATION

Northeastern University

Master of Science in Software Engineering Systems, GPA: 3.77

Boston, MA

Dec 2026

Nirma University

Bachelor of Technology in Electronics and Communication Engineering, GPA: 3.7

Ahmedabad, India

Jun 2023

EXPERIENCE

Software Engineer Co-op

Jan 2026 - Aug 2026

Origin Wireless

Maryland, USA

- Built a dashboard that replaced a manual curl-based terminal workflow for constructing and sending network topologies, cutting task completion time from **2 minutes to 30 seconds** and eliminating a recurring source of operator error.
- Designed and shipped **role-based access control** (admin, partner, maintainer) using **Apache Casbin**, closing a security gap by restricting partner visibility into sensitive model configuration without breaking internal team workflows.
- Independently built a fleet monitoring dashboard in **Next.js**, using **Redis**, **BullMQ**, and **MySQL** to aggregate csi status across devices via background jobs, triggering real-time alerts on service failures and supporting a company-wide pilot rollout; **authored setup and usage documentation** for the fleet dashboard codebase to support onboarding and cross-team adoption.
- Revamped an internal service dashboard with updated branding and optimized rendering performance, and built new dedicated dashboards for multiple services, supporting cross-team monitoring.
- Wrote unit and integration tests with **Jest**, covering core frontend and backend workflows end to end and catching regressions before code reached production.

Software Engineer

May 2023 - Aug 2024

Jayso Labs

Ahmedabad, India

- As founding engineer, architected and built the core platform from the ground up, scaling it to over **1 million active users** exploring city development plans and real estate projects across India.
- Built a distributed map tile server using **Node.js**, **AWS S3**, and **CloudFront**, designed to support additional and future city expansion maps layered onto Google Maps, using caching and CDN delivery to keep tile loading fast and efficient at scale.
- Containerized the platform with **Docker** and deployed it to **AWS EKS**, writing **Terraform** scripts to provision infrastructure as code, enabling repeatable, scalable deployments for the map tile server and supporting services.
- Designed a geospatial query API on top of **BigQuery's GIS** functions that returns a user's nearest projects and land listings first, with cursor-based pagination and multi-layer caching to keep results fast and consistent as usage scaled to millions of requests.

Software Engineering Intern

Jan 2023 - May 2023

Oizom Instruments

Ahmedabad, India

- Automated **EC2** infrastructure provisioning using declarative **Terraform** configurations and custom **Packer** AMIs, eliminating manual setup for internal tool deployment.
- Built a **Next.js** sensor calibration dashboard that replaced manual validation checks with automated calibration tracking, reducing validation overhead by **30%**.

PROJECTS

Google Workspace MCP Server | *Node.js, Google APIs, OAuth2, Claude AI*

[Github](#)

- Built an **MCP server** enabling **Claude** to act as an autonomous agent across **Gmail, Drive, and Calendar**, exposing OAuth2-secured tools so LLMs can execute real workspace actions rather than just generate text.

Cloud Based API Deployment & Infrastructure Automation | *Node.js, AWS, Terraform, Packer*

[Github](#)

- Architected a scalable, resilient distributed backend handling **5K requests/sec** on AWS using **EC2, ALB, RDS, and S3**, with zero-downtime deployments demonstrating cloud-native design at production scale.
- Automated cost-effective infrastructure provisioning using **Terraform, Packer, and GitHub Actions**, cutting manual deployment time to near-zero and enforcing infrastructure-as-code across all environments.

Logflow Pipeline - Cloud Native Distributed Streaming System | *Kafka, Spark, PostgreSQL, Terraform, GCP*

[Github](#)

- Designed and built a fault-tolerant distributed streaming system using **Kafka and Spark** on GCP, processing **10K log events/sec** with sub-second latency, persisting analytics to PostgreSQL, and automating infrastructure with Terraform.

Codial - Real Time Code Submission Platform | *Next.js, DynamoDB, Judge0, TypeScript, Docker*

[Demo](#)

- Developed a real-time coding platform using **Next.js, DynamoDB and CodeMirror**, deploying the frontend on **Vercel** and running **Judge0** in Docker containers on AWS EC2 for scalable multi-language code execution and automated grading.

TECHNICAL SKILLS

Languages: JavaScript, TypeScript, Python, Java, SQL, Go

Frontend: React, Next.js, Redux, Tailwind CSS, Material UI, Chakra UI

Backend: Node.js, Express, REST APIs, GraphQL, FastAPI, Django, Flask, Microservices, WebSockets

Cloud & Infrastructure: AWS (EC2, S3, RDS, Lambda, ALB, CloudWatch), GCP, Docker, Kubernetes, Terraform, GitHub Actions, Jenkins

Data & Messaging: PostgreSQL, MongoDB, MySQL, Redis, Cassandra, Kafka, Spark

AI / ML: LangChain, ChromaDB, RAG Pipelines, Agentic Workflows, GenAI, LLMs, GPT APIs, PyTorch