

# Trushil Lad

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## SUMMARY

Software Developer with 1.5+ years of experience building production-grade backend systems, AI/ML pipelines, automation workflows, and full-stack applications. Proficient in **Python, Node.js, NestJS, FastAPI**, and **React/Next.js**, with hands-on experience in **LLMs, RAG pipelines, n8n workflow automation, WebSocket-based real-time systems**, and third-party integrations (Razorpay, Easebuzz, ICICI Orange, Twilio, WhatsApp Cloud API). Experienced in **AWS infrastructure setup** (ECS, ECR, ALB, VPC), containerized deployments using **Docker**, and building scalable microservice-style architectures across FinTech, AI automation, logistics, and enterprise platforms.

## SKILLS

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

**Backend:** Node.js, NestJS, FastAPI, Flask, REST APIs, WebSockets, Webhooks, Microservices

**Frontend:** Next.js, React, Redux, HTML, CSS

**Databases:** MongoDB, PostgreSQL (Supabase), FAISS

**AI & Automation:** LLMs, LangChain, RAG Pipelines, Ollama, HuggingFace Embeddings

**Tools:** Docker, Kubernetes, Git, Postman, Swagger

**Integrations:** Razorpay, Easebuzz, ICICI Orange, Twilio Voice API, WhatsApp Cloud API, DigiLocker API, Strapi CMS

**Cloud:** AWS (ECS, ECR, ALB, VPC, RDS, CloudWatch, GitHub Actions CI/CD)

## WORK EXPERIENCE

**CREER INFOTECH** | SOFTWARE DEVELOPER

Ahmedabad, Gujarat, IN | May 2025 - Present

- **FinTech Platform – Digital & Physical Gold & Silver Investment System**

*Tech Stack: NestJS, Node.js, Next.js, Redux, MongoDB, Razorpay, Easebuzz, DigiLocker API, Docker*

- Designed and implemented the **core backend architecture** of a production-grade live-rate based digital and physical precious metals investment platform supporting trading, subscriptions, gifting, and fulfillment workflows.
- Developed and maintained **production RESTful APIs and microservice-style backend endpoints** covering KYC verification, wallet ledger transactions, recurring investment engines, logistics integrations, and RBAC-based CMS administration modules.
- Engineered a **real-time pricing engine** using **WebSocket-based live rate synchronization** with dynamic Bank/MCX source switching across transaction processing and subscription allocation pipelines.
- Integrated **Razorpay, Easebuzz**, and **ICICI Orange** payment systems including recurring billing, webhook orchestration, and reconciliation workflows for financial transaction reliability.
- Containerized backend services using **Docker** and managed image build, pull, and deployment workflows supporting consistent environment setup and production-ready service delivery.
- Built a **custom freight calculator** module handling dynamic rate computation, weight slabs, insurance calculations, and pincode-level serviceability for logistics fulfillment within the FinTech platform.
- Contributed to frontend investment flows using **Next.js** and **Redux** enabling rate-synchronized API-driven user transaction experiences.

- **AI Voice Calling Automation System – Conversational Sales Assistant**

*Tech Stack: Python, Twilio Voice API, Speech Recognition, Edge-TTS, SpaCy, TextBlob, Supabase*

- Built an event-driven **AI voice automation platform** using the **Twilio Voice API** enabling real-time conversational outbound calling workflows with adaptive dialogue orchestration.
- Engineered sentiment-aware response pipelines with automated **call-flow decision logic** and intelligent **human-agent escalation routing** during live voice interactions.
- Designed structured **conversation logging pipelines** using **Supabase** supporting analytics-ready datasets and **Twilio call lifecycle state management**.

- **Intelligent Web Scraper & Local RAG Chatbot Platform**

*Tech Stack: Python, FastAPI, LangChain, Ollama, FAISS, HuggingFace, Supabase, Selenium, Razorpay*

- Designed a scalable **full-site crawling engine** with adaptive scraping strategies for dynamic and static websites, powering an **embeddable site chatbot widget**.
- Built a backend ingestion pipeline using **FastAPI, LangChain, FAISS**, and **HuggingFace embeddings** for Retrieval-Augmented Generation (RAG).
- Implemented locally hosted **Gemma LLM workflows** with persistent session storage using **Supabase** supporting document-grounded conversational querying.
- Integrated **Razorpay subscription billing** with **two-step verification** for secure access control and plan-based feature gating.

- **Enterprise Knowledge Assistant – RAG Chatbot (Web + WhatsApp)**

*Tech Stack: Python, FastAPI, MongoDB, LLaMA 3, Playwright, LangChain, WhatsApp Cloud API*

- Built a full-stack **Retrieval-Augmented Generation (RAG)** knowledge assistant supporting real-time query resolution across **web chat** and **WhatsApp Cloud API**.
- Developed automated **Playwright-based indexing pipelines** for extracting structured content from dynamic JavaScript-rendered sources.
- Engineered locally hosted **LLaMA 3 inference workflows** with webhook-driven messaging automation and admin dashboard analytics support.

- **EventRadar – WhatsApp Event Intelligence Chatbot**

*Tech Stack: Python, Flask, MongoDB, BeautifulSoup, Pydantic, WhatsApp Cloud API*

- Built a **WhatsApp-based event intelligence chatbot** that crawls startup event platforms and answers natural-language user queries.
- Engineered a priority-based **BFS crawling pipeline** extracting structured event metadata with rule-based NLP query parsing.
- Designed persistent **MongoDB data pipelines** with webhook-driven messaging infrastructure for real-time conversational reliability.

## INTERNSHIP

### **QSPIDERS | JAVA FULL-STACK DEVELOPER INTERN**

Ahmedabad, Gujarat, IN | January 2025 - April 2025

- Developed full-stack applications using **Java, SQL, HTML, CSS**, and **JavaScript**.
- Built responsive UIs and ensured cross-browser compatibility.
- Optimized backend logic with **Java/SQL** and integrated third-party APIs.

### **IZONNET | FULLSTACK (MERN) INTERN**

Gujarat, IN | Jun 2024 – Jul 2024

- Contributed to a large-scale web application using the **MERN stack**, covering both frontend and backend.
- Built dynamic, responsive interfaces with **React.js**, optimizing state management.
- Developed **RESTful APIs** with **Node.js** and **Express.js**, ensuring secure data handling in **MongoDB**.
- Integrated third-party APIs and conducted testing with **Postman**, enhancing functionality.

## PROJECTS

### **COLLEGE SPACE**

HTML, CSS, BOOTSTRAP, PHP, MYSQL

- Developed user-friendly interfaces with student portals, faculty dashboards, event management, and secure authentication.
- Streamlined tasks using **HTML, CSS, Bootstrap, PHP**, and **MySQL**, enhancing communication and centralizing access to information.

### **CREDIT CARD FRAUD DETECTION**

PYTHON, MACHINE LEARNING

- Built a credit card fraud detection model using **Logistic Regression** in **Python**.
- Utilized **scikit-learn** for data preprocessing, model training, and evaluation.
- Identified fraudulent transactions, showcasing expertise in machine learning, data analysis, and model evaluation.

## EDUCATION

### **Bachelor of Computer Science Engineering**

GUJARAT TECHNOLOGICAL UNIVERSITY

Gujarat,IN | 2022 - 2025

## CERTIFICATE AND ACHIEVEMENTS

**eChai Demo Day Presenter:** Led a live demo of an AI voice automation system for 50+ attendees showcasing Twilio-based workflow.

**SAP Certification:** Issued by Code Unnati

**JP Morgan Chase and Co. Virtual Experience Program Participant:** Participated in the Virtual Experience Program with Forage.

**Electronic Arts:** Participated in the Virtual Experience Program with Forage

**Oracle Cloud Infrastructure AI Foundations:** Completed Oracle AI Foundations course on AI, ML, Generative AI, and LLMs.

*The projects listed above represent selected highlights. I have worked on several additional projects across various domains; I'm happy to walk through any of them in detail during a conversation.*