

MITUL CHAVDA

Full-Stack AI Engineer

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PROFESSIONAL SUMMARY

Full-Stack Engineer with **2.6 years** of experience core team member at Neome.ai, scaling products from **0 to 1,000+ active users**. Specialized in Nodejs, React and Typescript.

PROFESSIONAL EXPERIENCE

Software Developer — [Neome.ai](#), Ahmedabad

Aug 2023 – Feb 2026

- Architected **scalable systems** from **0→1,000+ users**: Designed component-based frontend architecture with React and React Native, establishing patterns for state management, **real-time data synchronization**, and **performance optimization**—**foundational** skills with streaming responses and complex state.
- Built Natural Language Query System: Designed and implemented an **intelligent query builder** that converts plain **English into structured queries** based on the input and output form that reduced query writing time by **60%**.
- Engineered fields mapping: Created a **Field Mapping Engine** that automatically **maps 50+ fields** across forms, and workflows using rule-based inference, reducing manual configuration by **~90%**
- Optimized real-time system performance: **Implemented diffing algorithms** and WebSocket-based synchronization for a Workflow Builder, **achieving 30% faster** experience in studio.
- Developed real-time analytics infrastructure: Built live dashboards with WebSocket data streams serving **1,000+ daily users**.

TECHNICAL PROJECTS

Sentinel-Invoice — Autonomous AI Invoice Anomaly Detection Engine

[GitHub](#)

Stack: TypeScript, LangGraph, Gemini 2.5 Flash, Groq Llama 3.3, React 19, PostgreSQL, Docker

- Built a full-stack autonomous AI auditing system using **LangGraph** pipeline: **PDF OCR via LlamaParse**, **structured extraction** with Gemini, real-time vendor verification via **Tavily + Groq ReAct agent**, and **historical price** benchmarking.
- Implemented **multi-model trust scoring** (0–100), **human-in-the-loop** workflow with LangGraph interrupts, reducing manual review time by **~60%**.

Code-RAG — Advanced GraphRAG + CRAG System for Codebase

[GitHub](#)

Stack: Python, LangGraph, Neo4j, Groq Llama 3.3, FastAPI, Tree-Sitter, React Flow

- Designed a **GraphRAG** pipeline with a **7-node Neo4j knowledge graph**, **hybrid retrieval (vector + BM25 + graph traversal)**, and **CRAG** corrective loops for codebase Q&A.
- Built full agentic system with **tool calling**, **RAGAS evaluation**, and **Langfuse observability**.

FlashCommerce — High-Traffic Flash Sale Backend

[GitHub](#)

Stack: Node.js, TypeScript, Fastify, PostgreSQL, Redis, Stripe, Jest, Docker

- Engineered a production-grade **high-concurrency** flash-sale backend handling intense inventory races using **atomic Redis Lua scripts**.
- Implemented secure **Stripe webhook** handling, automatic **inventory rollback**, PostgreSQL transactions, and comprehensive Jest test suites while maintaining **sub-millisecond inventory operations**.

Real-Time Surveillance Dashboard — 3D Satellite & Vessel Tracking

[GitHub](#)

Stack: React 19, TypeScript, Cesium.js, Node.js, Fastify, Redis, WebSockets, Docker

- Architected a full-stack real-time platform **visualizing 5,000+ satellites** and **1,000+ vessels** via **WebSocket streaming**.
- Optimized performance with **Redis caching** (98% reduction in upstream API calls).

EDUCATION

B.Tech in Computer Engineering — Charusat University, Ahmedabad 2020 – 2024 | CGPA: 8.8 / 10

ACHIEVEMENTS & LEADERSHIP

- Led CodeChef College Chapter, mentoring 100+ students in web development and competitive programming.
- CodeChef Global Rank 468 | Google Kickstart World Rank 3,891.