

Sanjay Aggi

AI Engineer | Full-Stack Developer | Agentic AI Systems | RAG Pipelines

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PROFESSIONAL SUMMARY

AI Engineer and Full-Stack Developer with experience building production-grade RAG systems, agentic AI workflows, and LLM-powered applications using React.js, Next.js, Node.js, TypeScript, and Python. Skilled in LangChain, LangGraph, vector search, semantic retrieval, prompt engineering, multi-agent orchestration, and scalable backend architectures. Built AI applications spanning AI-driven recruitment, medical research, and scalable e-commerce platforms.

TECHNICAL SKILLS

Languages: JavaScript, TypeScript, Python, SQL

AI Engineering: OpenAI API, Gemini API, HuggingFace API, LangChain, LangGraph, Prompt Engineering, Function Calling, Tool Calling, Multi-Agent Systems

RAG & Retrieval: Embeddings, Vector Search, Semantic Search, Multi-Source Retrieval, Semantic Ranking, Citation Grounding

Backend: Node.js, Express.js, REST APIs, JWT Authentication, OAuth 2.0, Server-Sent Events (SSE), Redis, BullMQ

Frontend: React.js, Next.js, Tailwind CSS

Databases: MongoDB, PostgreSQL, Prisma ORM

Tools & Cloud: Git, GitHub, Docker (Basics), GitHub Actions, Vercel, Render

EXPERIENCE

Full-Stack AI Engineer

Independent AI Application Development

Remote

2023 – Present

- Designed and developed AI-powered web applications using React.js, Node.js, TypeScript, RAG pipelines, and modern LLM APIs (OpenAI, Gemini, HuggingFace).
- Implemented semantic search, streaming responses, agentic workflows, and multi-agent orchestration across multiple AI products.
- Built 40+ REST APIs with authentication, validation, Redis caching, and BullMQ async queues for scalable backends.
- Integrated third-party services including Stripe, Cloudinary, OAuth providers, and social media platform APIs end-to-end.

PROJECTS

HireIQ — AI Hiring Intelligence Platform

React.js, Node.js, Express.js, MongoDB, Gemini API, Cloudinary

GitHub | Live Demo

- Built an end-to-end AI recruitment platform connecting job postings, resume screening, AI interviews, and hiring decisions into a unified pipeline.
- Engineered automated resume parsing with Cloudinary storage and pdf-parse, feeding extracted text into a Gemini-powered scoring engine.
- Designed a weighted match-score algorithm combining skill match, experience match, and AI-evaluated alignment scores.
- Developed an interactive AI screening module where Gemini generates resume-specific interview questions and evaluates transcripts for communication and technical competency.
- Implemented JWT authentication and Nodemailer email automation for application status updates with conversational state persistence.

CuraLink — AI Medical Research Copilot

React.js, Node.js, MongoDB, HuggingFace API, PubMed API, OpenAlex API, ClinicalTrials.gov API

GitHub | Live Demo

- Built an AI-powered medical research copilot aggregating scientific evidence from PubMed, OpenAlex, and ClinicalTrials.gov through a multi-source RAG architecture.
- Engineered a resilient multi-model inference pipeline using HuggingFace and Ollama with automatic fallback handling for high availability.
- Designed a semantic ranking engine evaluating publication relevance, recency, and source credibility before LLM context injection.
- Implemented citation-grounded prompting and disease synonym expansion to improve retrieval quality and reduce hallucinations.

ShopAI — AI-Powered Scalable E-Commerce Platform

React.js, Node.js, MongoDB, Redis, Stripe, OpenAI

GitHub | Live Demo

- Implemented dual-token JWT authentication with refresh token rotation and reuse detection for secure session management.
- Designed a Redis cache-aside strategy reducing API response time from 450ms to 150ms, improving platform scalability under load.
- Integrated Stripe Payment Intents with secure webhook verification for reliable payment processing.
- Built BullMQ asynchronous workflows for analytics, notifications, and background processing pipelines.

EDUCATION

Aurora's Technological & Research Institute (ATRI)
Bachelor of Technology — Computer Science Engineering

Hyderabad, India
Jun 2018 – Aug 2022

CERTIFICATIONS

CuraLink Hackathon v2.0 — Certificate of Distinction
Full-Stack MERN Development (NextWave)

2026
2024