

Anagha Mohan

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Professional Summary:

AI Automation Engineer with a production-grade Backend background. Currently executing a high-velocity engineering sprint: architecting and deploying 5 **Autonomous AI Agents** in <15 days. Expert in building AI agent systems using **LangGraph**, **FastAPI**, and **Docker**. I bridge the gap between experimental LLM demos and fault-tolerant, scalable software systems.

Technical Skills:

- **AI & Orchestration:** LangGraph, LangChain, Google Gemini models, Google API, RAG Pipelines, Vector Databases (ChromaDB), Agentic Workflows.
- **Backend Engineering:** Python (Expert), Java, FastAPI, REST API Design, Microservices, Spring Boot, Hibernate, SQL.
- **Infrastructure & Tools:** Docker, AWS (EC2, RDS, Athena), Jenkins, Git, ArgoCD, Pydantic, Kafka.

Education:

B.E. in Computer Science Engineering

The National Institute of Engineering, Mysuru

CGPA: 9.15/10 | Dec 2020 – June 2024

Work Experience:

AI Automation Engineer (Independent Sprint)

Jan 2026 - Present

- **Architected** scalable **Agentic AI Workflows** using **LangGraph**, moving beyond linear chains to cyclic state machines that handle complex, multi-turn reasoning and error recovery.
- **Engineered** production-ready **Microservices** (FastAPI, Docker) to serve LLM applications, enforcing strict type safety (**Pydantic**) and decoupling reasoning engines from application logic.
- **Built** a production-grade **RAG Pipeline** for document intelligence, utilizing **Gemini** and **ChromaDB** to automate smart chunking and vector embedding for precise semantic search over complex PDFs.

Backend SDE - Halodoc Technologies LLP

Feb 2024 – Feb 2025

- Implemented Redis-based OTP throttling system, reducing daily OTP requests by 91% and saving \$35,000 annually.
- Automated detection of configuration drifts between staging and production using Python + Jenkins, improving deployment quality.
- Integrated wallet payment APIs into existing payment gateway; achieved 97% success rate and became 3rd most used method.
- Implemented comprehensive logging and monitoring ensuring 99.9% system visibility.
- Streamlined user data migration using Python, Kafka, and Athena; enabled historical analytics.
- Built a batching script with EC2 deployment to manipulate and transfer data via SFTP, leading to \$36.2K savings in 2024 and \$120K projected annually.

Key Projects:

Autonomous Research Agent

- **System Design:** Built a cyclic state machine that autonomously plans research, executes live web searches, and reflects on data quality before generating answers.

PDF Ingestion & Manifest Generator

- Automates the ingestion of complex PDFs, using smart chunking strategies to preserve context before creating vector embeddings.

LearnLike5 — AI-Powered Learning Tool

- Built an AI agent using Gemini API to explain complex topics for kids using simple analogies. Designed ReAct-style prompts and deployed with Streamlit for interactive UI.

Awards & Certificates:

- **Spot Award Winner** at Halodoc (Aug 2024) — for outstanding backend performance.
- [Multi AI Agent Systems with crewAI](#)