Ayush Dodal

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AI Engineer who builds end-to-end AI and data systems. Focused on shipping practical tools using LLMs, RAGs, and Agentic AI Workflows.

Work Experience

RAG ChatBot
Tech: Python, LangChain, OpenAI LLMs & embeddings, Vector Search, Streamlit

- Built a **Retrieval-Augmented Generation (RAG)** system for querying PDFs.

- Implemented **recursive text chunking** with overlap for better context retention.

- Generated embeddings using **OpenAI embedding models** and stored them in a **vector store**.

- Used **LangChain retrievers** for similarity search and context assembly.

- Designed prompt templates to reduce hallucinations and enforce grounded answers.

- Deployed as a **Streamlit web app** with **secure API key handling** and modular pipeline design.

Fitness Tracking AI Agent
Tech: Python, LangChain, Supabase (Postgres), FastMCP, SQL

- Built an AI agent to **log, query, and analyze workout data via natural language**.

- **Used LangChain to orchestrate tool calls, memory, and structured outputs.**

- Designed a **PostgreSQL schema on Supabase** for workouts, exercises, and sessions.

- Implemented **natural-language → SQL querying** to fetch historical workout data.

- Deployed a lightweight **MCP server using FastMCP** to expose workout logging and query tools.

Top Skills

- **Python —** Core language for AI systems; built modular LLM pipelines, agents, and data services with clean abstractions and production-ready code**.**

- **LLMs & Generative AI —** Retrieval-Augmented Generation (**RAG**), prompt design, tool calling, agent orchestration, hallucination control, and response grounding.

- **Vector Search & Embeddings —** Text chunking with overlap, similarity search, embedding generation, and vector store integration for document Q&A systems.

- **Databases & Storage —** PostgreSQL (Supabase), schema design, relational modeling, and natural-language → SQL querying.

- **APIs & Backend —** Designed and deployed lightweight AI services using FastAPI and FastMCP; exposed model tools and data endpoints.

- **Deployment & Tooling —** Streamlit (prototyping), GitHub, Docker (basics), cloud platforms (Azure/GCP fundamentals), secure secret management.

Education

MS : Data Architecture & Management	**2022 - 2024**
Northeastern University, Boston	
B.Tech : Computer Engineering	**2018 - 2022**
NMIMS University, Mumbai	

About me

My Portfolio | My GitHub