Avinash Palakurthi

Developer | AI & RAG Specialist | Full-Stack Developer

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Professional Summary

Highly motivated and results-driven developer with a strong background in Large Language Models (LLMs), Retrieval-Augmented Generation (RAG) systems, and full-stack application development. Proficient in Python, LangChain, and vector databases such as Pinecone and ChromaDB. Successfully delivered innovative AI solutions, including a PDF-based Q&A system and an AI-powered career guidance platform. Dedicated to building scalable, next-generation AI and NLP applications.

Skills

- **Large Language Models (LLMs):** OpenAI (GPT-3, GPT-4), Claude, Groq

- **RAG Frameworks & Libraries:** LangChain, LangSmith

- **Vector Databases:** Pinecone, ChromaDB

- **Programming Languages:** Python, JavaScript (ES6+), Node.js

- **Backend Frameworks:** FastAPI, Express.js (Node.js)

- **Frontend Frameworks:** ReactJS, HTML5, CSS3

- **AI Agent Development:** Basic AI Agent Creation with LangChain

- **Embeddings & Retrieval:** OpenAI Embeddings

- **Deployment:** Streamlit, Hugging Face Spaces

- **Version Control:** Git, GitHub

Projects

PDF-Based Question & Answering System

- Developed a Streamlit application enabling users to upload PDF documents and receive contextually accurate answers.

- Built a RAG pipeline using LangChain to perform document chunking, semantic search, and retrieval.

- Integrated ChromaDB for high-efficiency document embedding and semantic querying.

- Used Groq models to generate dynamic, context-aware responses.

- **Technologies:** Streamlit, ChromaDB, LangChain, Groq, Python

AI-Powered Career Guidance Platform

- Designed a career advisory platform offering personalized guidance and trending skill recommendations.

- Built the frontend using ReactJS for an intuitive and responsive user experience.

- Developed the backend with FastAPI (and optionally Node.js) to manage API endpoints and application logic.

- Implemented RAG workflows using LangChain and monitored performance via LangSmith.

- Leveraged OpenAI models and embeddings, combined with Pinecone vector storage for rapid, accurate matching.

- **Technologies:** ReactJS, FastAPI / Node.js, LangChain, LangSmith, OpenAI, Pinecone

Education

Bachelor of Commerce (B.Com)
Dr. B.R. Ambedkar Open University, Hyderabad