

Shivani Vishwakarma

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SUMMARY

AI Applications Developer specializing in LLM-powered systems, Retrieval-Augmented Generation (RAG), and Python-based automation. Experienced in building end-to-end AI applications including intelligent assistants, dataset analysis tools, and workflow automation systems. Skilled in designing solutions that combine reasoning, retrieval, and structured data processing. Focused on transforming AI models into practical, production-like tools that solve real-world problems. Comfortable working with APIs, vector databases, and LLM frameworks like LangChain.

SKILLS

- **Programming:** Python, SQL
- **AI/ML:** LLMs, RAG Systems, Prompt Engineering, Agentic AI
- **Frameworks & Tools:** LangChain, ChromaDB, OpenAI API, FastAPI
- **Data:** Pandas, Data Analysis, Data Cleaning, Visualization
- **Automation:** n8n, Make, API Integration, Workflow Automation
- **Other:** Git, GitHub, REST APIs

PROJECTS

DocTutor AI

- Built an AI-powered PDF chat application that enables users to upload documents and interact with them using natural language.
- Implemented a Retrieval-Augmented Generation (RAG) pipeline using LangChain for context-aware question answering.
- Integrated ChromaDB as a vector database for efficient semantic search and persistent embedding storage.
- Designed a semantic search system using OpenAI embeddings to retrieve relevant document chunks based on user queries.
- Implemented document preprocessing, chunking, and embedding workflows using PyPDF and LangChain utilities.
- Enabled scalable document understanding by combining retrieval-based search with LLM-based generation (RAG architecture).

AI Data Profiler

- Developed a multi-format data ingestion system supporting CSV, Excel, JSON, TXT, PDF, and DOCX files.
- Implemented automated dataset analysis including missing value detection, data type identification, and statistical summaries using Pandas.
- Integrated OpenRouter API to generate AI-powered explanations of technical dataset terms in simple, human-readable language.
- Applied prompt engineering to extract meaningful summaries and convert raw dataset information into actionable insights.

AI Automations

- Built a collection of AI-powered automation workflows designed to convert raw business data into structured, actionable outputs.
- Developed end-to-end automation systems using n8n and Make.com to streamline sales reporting, lead management, and business decision-making.
- Implemented AI-driven reporting pipelines that transform messy sales data into summarized insights with human-in-the-loop approval.
- Integrated multiple APIs (OpenAI, OpenRouter, CRM tools, Slack, Google Sheets) to create seamless cross-platform automation pipelines.
- Applied prompt engineering and decision logic to build AI “decision engines” for real-world business workflows.

EDUCATION

Bachelor of Science in Data Science

Indian Institute of Technology Madras

2024 – Present

Relevant Coursework: Data Structures & Algorithms (Python), DBMS, Statistics for Data Science, Mathematics for Data Science, and Modern App Development.

CERTIFICATIONS

- Foundational Level in Programming and Data Science — IIT Madras
- Python for Data Science, AI & Development — IBM