

Naveen Mamidala

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Skills

Languages:	Python
Data Science:	NumPy, Pandas, Machine Learning, Deep Learning, Computer Vision
Artificial Intelligence:	LLMs, RAG, Prompt Engineering, Fine Tuning (LLMs), LangChain, LangGraph
Web Scraping & API:	Selenium, BeautifulSoup, Streamlit, FastAPI
Databases & Storage:	FAISS, Pinecone, ChromaDB (Vector DB)
Tools & Platforms:	Hugging Face, Git, Jupyter Notebook, VS Code, Tableau, Linux

Experience

AI Engineer

Neuramonks – Ahmedabad, IN

Nov 2024 – May 2025

Project 1: GitHub Repo Setup Agent

Developed a LangChain-based agent system to automate end-to-end GitHub repository setup for local development environments. Leveraged OpenAI's LLM API to analyze source code and generate clean requirements.txt files by identifying actual imports, reducing dependency bloat. The agent automates repository cloning, detects environment files (requirements.txt, pyproject.toml), sets up virtual environments, and performs pip installation checks. Integrated VS Code auto-launch with virtual environment activation, enabling a seamless onboarding experience for developers with minimal manual intervention.

Project 2: RAG Chatbot for Smart Vision Systems

Developed a RAG chatbot using the LangChain framework, seamlessly integrated into a Smart Vision System for domain-specific queries. Leveraged the Qwen2.5-7B model from Hugging Face to enhance natural language understanding. Scrapped relevant web data, generated vector embeddings, and utilized FAISS for fast, similarity-based retrieval. Fine-tuned the LLM and optimized indexing to reduce hallucinations and ensure accurate, reliable responses.

Project 3: CSV Agent – AI-powered Data Analysis Assistant

Built an AI-powered CSV analysis assistant using LangChain, enabling dynamic, query-based exploration of structured datasets. Integrated OpenAI's LLM API to interpret natural language queries, perform computations, and deliver insights. Designed the agent to handle complex operations like aggregations, trend analysis, and filtering on large datasets. Ensured user-friendly, structured outputs to make data analysis accessible to non-technical users.

Projects

Changi RAG Chatbot – AI-Powered Travel Assistant: Built an intelligent Retrieval-Augmented Generation (RAG) chatbot using Mistral-7B deployed locally via Ollama for cost-effective and secure inference. Leveraged LangChain to orchestrate document loading, embedding, and retrieval workflows for answering travel-related queries about Changi Airport. Enabled contextual Q&A from airport policies, baggage info, and flight procedures using a vector store, improving user experience with accurate and efficient responses.

Reddit User Persona Generator (2025): Designed a Python-based pipeline that scrapes and analyzes any Reddit user's posts and comments to generate a detailed behavioral persona. Integrates Reddit API (PRAW) for data collection and a local LLM (via Ollama) for psychological/personality inference. Fully modular, includes insightful activity metrics, inline content citations, and outputs human-centric persona summaries in structured text.

Education

B.Tech in Artificial Intelligence and Machine Learning
PP SAVANI UNIVERSITY, Surat-Gujarat

2020 – 2024

- CGPA: 7.9