S. Abhijit Rao

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Executive Summary

Motivated B.Tech (Artificial Intelligence) graduate with hands-on experience building production-style AI and software solutions. Proficient in Python and SQL, and experienced with LLM frameworks, RAG pipelines, vector databases (ChromaDB), FastAPI, and React. Demonstrated impact through internships and projects—reduced manual video-editing effort using automated RAG flows and earned "Intern of the Month" at Prodigal AI—eager to contribute technical skills and collaborative problem solving to a growth-focused engineering team.

Professional Experience

Prodigal AI **Feb 2025 – June 2025**

Agentic AI Intern *Remote, India*

- Worked on **Dhanur AI**, a cutting-edge video editing automation platform by Prodigal AI that transforms raw user video into polished YouTube/Shorts-ready content using **Langchain framework**.
- Implemented **Retrieval-Augmented Generation** (RAG) pipelines integrated with **vector databases** for intelligent context retrieval of b-roll , filters and transition segmentation using **ChromaDB**.
- Reduced manual editing time significantly through intelligent automation, enhancing creator productivity.
- Awarded **Intern of the Month** in April 2025 for exceptional performance and innovation.

Projects

Multi-Agent Financial Chatbot System | **Github Link**

- Developed a modular multi-agent system using open-source **LLMs (LLaMA 3.1, DeepSeek)** with the **Phidata framework**, orchestrated via **Groq inference APIs** for high-performance response times.
- Engineered a finance-focused **chatbot** capable of real-time stock data retrieval, web summarization, and analytics by integrating specialized agents **(Finance Agent, Web Agent)** using tools like **YFinance**, **DuckDuckGo**, and custom utilities.

Natural Language → SQL Agent | **Github Link**

- A natural-language → SQL conversational agent using **LangGraph** and an LLM to generate syntactically-correct SQL from plain-English questions and execute them against a local SQLite database.
- Implemented a 3-node graph (write query → execute query → generate answer), plus a Streamlit UI that shows generated SQL and raw results.

NASA-Turbofan-Jet-Engine | **Github Link**

- Developed a machine learning model to predict the remaining useful life (RUL) of a turbofan jet engine using data from NASA's open-source dataset
- Implemented **data preprocessing**, feature engineering, and model training techniques, optimizing the model with algorithms like **Random Forest** to achieve accurate RUL predictions
- Collaborated with a team during a college hackathon, applying data science methodologies to solve real-world engineering problems and improving predictive maintenance strategies.

Technical Skills

Languages: Python, SQL

Technologies/Frameworks: LangChain, LangGraph,Langsmith, Phidata, FastAPI, , Streamlit, Scikit-Learn, TensorFlow, OpenAI APIs, ChromaDB , hugging face.
Concepts: Retrieval-Augmented Generation (RAG), API development, model evaluation, version control (Git), data preprocessing, debugging using langsmith, multi agent workflows using LangGraph

Operating System: Mac Os, Linux, Windows.

Soft skills: Collaborative Teamwork, Adaptability, Creativity, Problem solving.

Education

Mahindra University **August 2021 - June 2025**

Bachelor of Technology in Artificial Intelligence - CGPA of 6.98 *Hyderabad, India*

Relevant coursework : Data Structures, Object-Oriented Programming, Web Development (Node.js, React), Machine Learning, Cloud Computing.