POOJITH MENDEM

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PROFESSIONAL EXPERIENCE

Data Science Intern

Technex (Virtual Internship) | Aug 2022 – Sep 2022

- Developed and evaluated predictive models to determine credit card eligibility using financial and behavioral data, ensuring accuracy through performance metrics and optimization.
- Leveraged machine learning tools and techniques to extract insights and data-driven decision-making in financial services.
- Gained hands-on experience in model development, evaluation, and real-world application of data science methodologies.

PROJECT EXPERIENCE

Problem Solver Pro

- Developed a multi-agent system to automatically solve coding problems from platforms like Hackerrank.
- Utilizes Agentic AI with three distinct agents: The first agent solves the problem using provided examples, the second generates and validates ten test cases, and the third writes the correct Python code with comprehensive comments.
- Implemented with CrewAI agents and OpenAI's GPT-4 model for advanced coding intelligence, integrated with AgentOps for real-time performance monitoring and optimization, ensuring efficient and accurate code generation.

Analyze Mate:

- Designed a multi-agent system using OpenAI's GPT-4 and CrewAI framework, where one agent interprets dataset structures and another generates code to execute user queries, automating data analysis operations.
- Enabled efficient and accurate retrieval of insights from datasets, streamlining complex data query processes and enhancing user-driven analysis.

Advanced Database System

- Developed a project that processes user input in English, converting it into SQL commands for efficient data retrieval from a SQLite3 database.
- Leveraged OpenAI's GPT-3.5 Turbo model for precise interpretation and transformation of natural language queries into executable SQL, enhancing query accuracy and reliability.
- Implemented a user-friendly interface using Streamlit, and streamlining the data retrieval process.

Retrieval Augmented Generation:

- Developed a RAG project using the Ollama 3.1 model and FAISS to store and manage vector representations of data, facilitating efficient retrieval and generation of answers based on questions.
- Implemented key steps in data ingestion and transformation to ensure accurate processing and integration with the FAISS vector database for quick response generation.
- Enhanced user interaction through a Streamlit-based interface and deployed the project on Streamlit Cloud, enabling easy access and real-time functionality.

SnapCalorie:

- The project utilizes Gemini 1.5 Flash multimodel to analyze user-submitted meal photos and estimate their caloric content.
- A user interface is developed using Streamlit and deployed on Streamlit Cloud, enabling easy access and interaction.

Skills

Programming Languages*:* Python, Java, C++, C

Machine Learning: Supervised, Unsupervised, Model Selection, Evaluation, Hyperparameter Tuning, Deployment, Monitoring And maintenance, MLOps.

Text classification: Text preprocessing, Syntatic Analysis, Semantic Analysis, Language modeling, Model Building, RNN.

Large Language Models: GPT's, Gemini, LLaMA,NVIDIA, AWS Bedrock Foundational Models, Hugging Face.

Agentic AI Frameworks: CrewAI, Autogen, PhiData, LangGraph, LangFlow.

Model Deployment: AWS, Azure, Streamlit, HuggingFace

Databases: SQL, SQLite3, VectorDB, Aws S3

Specialization: GenAI, Agent-based System, Fine-tuning, Prompt Engineering, Transfer Learning, Natural Language Processing, LLMOps, AgentOPs

EDUCATION

Aug 2023 – Aug 2025

Michigan Technological University, Houghton, Michigan

(MS DATA SCIENCE) **GPA-3.62**