Rahul Katukam

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AI Engineer

Enthusiastic and creative AI enthusiast with a robust understanding of artificial intelligence, particularly in vector databases and LLM frameworks. Eager to apply my technical skills and innovative thinking to develop pioneering AI solutions and contribute effectively within a collaborative team environment

SKILLS

Programing Languages: python

Frameworks & Libraries: Crew ai, keras, LangChain, Langraph, nltk, Opencv, Seaborn, TensorFlow

Gen AI Technologies: ChromaDB, Llama, Neo4j, OpenAI API, Prompt Engineering, RAG

AI/ML Techniques: Computer Vision, Natural language processing, Neural Networks

Soft Skills: : Analytical thinking, Effective Communication, Problem-Solving, Teamwork

EDUCATION

BACHELOS IN ELECTRONICS AND COMMUNICATION -ENGINEERING

B V RAJU INSTITUTE OF TECHNOLOGY • Narsapur, Medak • GPA: 7.34/10

PROJECTS

Smart Document Interaction Chatbot Using LangChain and ChromaDB

- **Overview:** Developed an intelligent chatbot that understands and interacts with documents to provide accurate, context-aware answers by integrating LangChain, ChromaDB, OpenAI, and Retrieval-Augmented Generation (RAG).
- **Technologies:** LangChain, ChromaDB, OpenAI language models, Retrieval-Augmented Generation (RAG) techniques, Python.
- **Outcome:** Achieved a 50% reduction in response time and improved the accuracy of information retrieval by 35%, significantly enhancing user experience and satisfaction.

Weed Detection Using Machine Learning

- **Overview:** Developed a machine learning model to automatically detect and classify weeds in agricultural fields, reducing manual labor and improving crop yield.
- **Technologies:** Python, TensorFlow ,Keras OpenCV, NumPy, Pandas, Matplotlib.
- **Outcome:** Achieved over 80% detection accuracy, significantly minimizing manual weed removal and enhancing agricultural efficiency

LLM Fine-Tuning with unsLoTh

- **Overview:** Implemented and experimented with fine-tuning large language models using the unsLoTh framework to enhance domain-specific response accuracy and efficiency.
- **Technologies:** Python, unsLoTh, Hugging Face Transformers, OpenAI APIs.
- **Outcome:** Successfully fine-tuned a pretrained LLM on custom data, achieving improved contextual understanding and generating more precise, domain-relevant responses.

CERTIFICATIONS

Python Complete Course For Python Beginners
Udemy

Data Processing and Visualisation
FUTURESKILLS PRIME

Career Essentials in Generative AI by Microsoft and LinkedIn
MICROSOFT