MAHENDRA PAVALLA

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EDUCATION

Punnaiyah Ramajayam Institute of science and technology   **2020 - 2024**
B-tech Civil Engineering; CGPA: 7.71

Krishna Chaithanya Junior College   **2018 - 2020**
Intermediate; Grade: 67.67%

Vikas High School   **2017 - 2018**
Secondary Education: CGPA:7.75

SKILLS SUMMARY

Programming Languages: Python, C
Deep Learning Architectures: Neural Networks
Data Processing: Pandas, NumPy, SQL
Machine Learning Frameworks: TensorFlow, PyTorch, Keras.

WORK EXPERINCE

Skill Share Technologies   July 2024 – Present Hyderabad, India
Generative AI Engineer Intern

- Gained hands-on experience in developing and implementing generative AI models, leveraging deep learning techniques to create innovative solutions.
- Worked on fine-tuning large language models (LLMs) and optimizing machine learning algorithms for improved performance and efficiency.
- Developed and tested AI-driven applications using Python, TensorFlow, PyTorch, and other deep learning frameworks.
- Conducted data preprocessing, feature engineering, and model training to enhance the accuracy and reliability of AI models. Fine-tune and optimize models for scalability, ensuring high performance in production environments.
- Provide training and mentoring to junior team members, fostering a collaborative environment for AI development.

PROJECTS

AI-POWERED INDUSTRIAL SAFETY MONITORING   April 2025 - May 2025

- Designed and implemented a multi-agent system for real-time industrial safety monitoring, integrating video analysis, sensor data, and historical incident retrieval.
- Developed and trained deep learning models (YOLOv5, I3D) for detecting unsafe behaviors from CCTV footage and correlating with sensor anomalies using contrastive learning.
- Fine-tuned a Retrieval-Augmented Generation (RAG) agent for incident analysis, enabling proactive safety recommendations based on past events and compliance guidelines (e.g., OSHA, ISO 45001).
- Delivered real-time hazard alerts, shift-based prevention checklists, and dynamic safety compliance reports to improve workplace safety and reduce incident response times.

Langgraph Decision maker   February 2025 - March 2025

- Developed a decision-making agent using LangGraph and LLMs that evaluates problem statements and selects the best option from multiple user-provided choices.
- Designed a dynamic prompt-driven interface using Streamlit, allowing users to input real-world problems and receive optimal decisions based on natural language understanding.
- Leveraged LangGraph's node-based workflow architecture to model reasoning paths and decision logic in a structured, interpretable manner.
- Implemented context-aware evaluations with LLMs to ensure decisions are explainable, relevant, and based on the given context and alternatives.

Next Word Prediction using LSTM   December 2024– February 2025

- **Data Preparation**: Collect and clean a large text dataset, then convert it into sequences of words for training.Applied Hugging Face's NLP tools to process the language and create accurate, meaningful responses.
- **Tokenization**: Convert words into numerical tokens and create input-output pairs for the model
- **Model Building**: Build an LSTM model using layers like Embedding, LSTM, and Dense to predict the next word.
- **raining and Prediction**: Train the model on sequences, then use it to predict the next word based on input text.

CERTIFICATIONS

- Cat certification in C- programming Language .

PERSONAL SKILLS

- Team Coordination.
- Result-Oriented Approach.
- Hardworking & Adaptable.
- Good Communication Skills.