Pavan Macha

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GitHub — LinkedIn

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

Education

CMR Engineering College, Telangana

2026

B.Tech - Computer Science (AI & ML)

CGPA: 8.1

Experience_____

AI Intern

 $_{\rm IBM}$

Feb 2024 - Mar 2024

- Optimized AI models by analyzing classifiers for improved accuracy.
- Applied machine learning techniques to enhance model performance.
- Collaborated with team members to implement optimization strategies.

Secretary, IEI - Student Chapter

CMR ENGINEERING COLLEGE

Mar 2024 - Present

- Managed logistics, documents, and event coordination.
- Led efforts to streamline operations and ensure event success.
- Organized technical workshops and seminars in collaboration with team members.

Projects_____

Chatbot with SQLite Logging

- Built an intent-based chatbot using Python with NLP techniques.
- Utilized NLTK for text preprocessing and scikit-learn's TF-IDF vectorization for classification.
- Implemented SQLite database integration to log user conversations.
- Debugging included probability distribution outputs to aid model tuning.

Cardiac Arrest Prediction in Newborn Babies

- Developed a predictive ML model for early detection of cardiac arrest in newborns.
- Processed health data and integrated MongoDB for storing patient records.
- Built an API using Flask for model interaction and logging predictions.
- Used visualization tools like Matplotlib and Seaborn to analyze trends.

Handwritten Digit Recognition Web App - AI-Powered Classification

- Implemented a Convolutional Neural Network (CNN) to classify handwritten digits (0-9).
- Achieved 97% accuracy on MNIST dataset.
- Developed a web interface using Flask for real-time digit recognition.
- Deployed model for public access on platforms like Render/Heroku.

Skills_

Core Skills
Machine Learning & AI
Frameworks & Libraries
Databases
Tools & Platforms

DSA, Data Preprocessing, Data Analysis, Data Visualization Machine Learning, Deep Learning, NLP, Model Optimization TensorFlow, Scikit-learn, Flask, Streamlit, Pandas SQLite GitHub, Streamlit Cloud

Certifications _____

Machine Learning with Python Bronze Certificate PHP and MySQL Training Young Professional on Soft Skills IBM Smart Interviews IIT Bombay TCS iON Career Edge