Medicherla Phani Chaitanya

Bhimavaram, India | +91 93818 91353 | phanichaitanya63@gmail.com
github.com/Phani943 | phani943.github.io/Profile | linkedin.com/in/phani-chaitanya-ps349

PROFESSIONAL SUMMARY

Aspiring AI Engineer & Full-Stack Developer with strong foundation in Machine Learning, Deep Learning, NLP and MERN stack development. Experienced in building end-to-end systems for computer vision and web applications. Comfortable with production deployment and collaborative development workflows.

EDUCATION

SRKR Engineering College — Bhimavaram
B.Tech in AIML — Oct 2022 – May 2026
CGPA: 9.19

Tirumala Junior College — Bhimavaram
Class XII — Jun 2021 – May 2022
Percentage: 90.6%

TECHNICAL SKILLS

Programming: Python, JavaScript, Java
ML/DL Frameworks: TensorFlow, PyTorch, OpenCV, Scikit-learn, MediaPipe
Frontend/Backend: React, Node.js, Express
Web: HTML5, CSS3, Tailwind CSS, Vite, Axios, Socket.IO
Databases: MongoDB, SQL
Tools: Git, Pycharm, Jupyter, Streamlit, Gradio, VS Code, WebStorm
Core Areas: ML, DL, NLP, Computer Vision, MERN

PROJECTS

English to Hindi Neural Machine Translation — github.com/Phani943/English_To_Hindi

- **Technologies:** Python, TensorFlow, Keras, Seq2Seq-LSTM, NumPy, Pandas
- Implemented a seq2seq encoder–decoder LSTM model with 440-dimensional embeddings for end-to-end English → Hindi translation.
- Trained on an 80k parallel-sentence corpus, reaching ≈97 % validation accuracy.
- Created pre-trained tokenizers & model checkpoints plus a configurable Jupyter notebook and JSON config to let users fine-tune or retrain the system quickly.

Image Captioning — github.com/Phani943/Image-Captioning

- **Technologies:** TensorFlow, Keras, CNN, LSTM, Python, OpenCV, NLTK
- Developed a hybrid CNN-LSTM model leveraging transfer learning to generate accurate and descriptive image captions.
- Trained on a 200k image–caption dataset, to improve accuracy and generalization.
- Designed an end-to-end preprocessing pipeline for image feature extraction and text tokenization, optimizing model performance.

Real-Time Localization of Common Objects — github.com/Phani943/Object_Localization

- **Technologies:** TensorFlow, OpenCV, Python
- Designed and implemented a deep learning pipeline for accurate object localization and classification.

- Achieved 98.8% training accuracy and 94% validation accuracy, demonstrating strong generalization on unseen data.
- Generated precise bounding box outputs, enabling robotics systems to identify and navigate toward target objects in real time.

ByteSwap github.com/Phani943/ByteSwap

- **Technologies:** React, Vite, Tailwind CSS, Node.js, Express, MongoDB, Socket.IO, JWT
- Developed a full-stack web application enabling users to teach and learn skills via anonymous real-time chat sessions.
- Implemented JWT-based authentication, a skill-matching function, session lifecycle management, and real-time messaging with Socket.IO.
- Deployed frontend and backend on Render and used MongoDB Atlas for database hosting. Designed a responsive UI.

CERTIFICATIONS & ACHIEVEMENTS

• **e-Yantra Robotics Competition (IIT Bombay, 2023-24):** Semi-Finalist (Top 10–20 teams nationally) in this 6-month AI & Robotics challenge. Developed an autonomous robot using Deep Learning (CNN) to detect hazards like destroyed buildings, fire, and military vehicles on maps, navigating to danger zones with line-following algorithms to assist in disaster and combat scenarios.

• **Smart India Hackathon (2024):** Selected in college internal round for a project on AI-based smart traffic management using object detection to prioritize vehicle lanes and reduce congestion, aiming to improve overall traffic flow and enhance road safety.