

MADANA MOHANA REDDY M

AI / ML Engineer • Deep Learning • Generative AI

+91 9347931782 madanamohanareddy77@gmail.com Kadapa, A.P [LinkedIn Profile](#)

PROFESSIONAL SUMMARY

AI/ML undergraduate with hands-on experience in deep learning, computer vision, and Generative AI systems. Built end-to-end intelligent applications including a deepfake detection system and retrieval-augmented generation (RAG) pipelines. Strong in Python, machine learning, and LLM-based applications, with a focus on developing scalable, real-world AI solutions. Seeking AI/ML internship or entry-level roles to apply and expand practical expertise.

TECHNICAL SKILLS

Languages: Python, SQL
ML & Deep Learning: Supervised Learning, CNNs, NLP, Computer Vision, Model Evaluation & Optimization
Generative AI: LLMs, Prompt Engineering, RAG Pipelines, Embeddings, Vector Databases (FAISS)
Frameworks & Libraries: Scikit-learn, OpenCV, Pandas, NumPy, Matplotlib, LangChain, SentenceTransformers
Tools & Platforms: Git, Jupyter Notebook, Google Colab, VS Code, FastAPI
Deployment & APIs: FastAPI (REST), HTML, CSS

KEY PROJECTS

Deepfake Video Detection System

Computer Vision | Deep Learning | Python • OpenCV • Scikit-learn

- Engineered an end-to-end CNN-based pipeline to classify real vs. AI-manipulated videos, addressing one of the most critical challenges in modern media security.
- Built a robust preprocessing engine with automated face extraction, temporal frame sampling, and pixel normalisation, significantly improving training data quality.
- Achieved strong F1-score through iterative hyperparameter tuning, threshold optimisation, and precision/recall analysis.
- Optimised inference speed by streamlining the preprocessing pipeline, making the system suitable for near-real-time deployment.

Enterprise Document Intelligence System

Generative AI | RAG | Python • LangChain • FAISS • SentenceTransformers • FastAPI

- Designed and built a production-grade RAG assistant for intelligent question-answering over large enterprise document collections.
- Implemented a full ingestion pipeline: document chunking, semantic embedding via SentenceTransformers, and FAISS-powered similarity search.
- Integrated LLM response generation with source attribution, enabling traceable and auditable AI outputs.
- Exposed the system as a scalable REST API via FastAPI for real-time inference and seamless external integration.

EDUCATION

B.Tech – Computer Science Engineering (AI & ML)

Siddharth Institute of Engineering and Technology, Puttur | JNTUA Anantapur

Expected 2026 | CGPA: 8.37/10

Intermediate (Class XII)

Narayana Junior College, Kadapa | Board of Intermediate Education, A.P

2022 | 91.5%

SSC (Class X)

Pavan Concept E.M High School, Kadapa | Board of Secondary Education, A.P

2020 | 96.5%

CERTIFICATIONS & LEARNING

- Machine Learning & Data Science — Comprehensive coursework covering supervised/unsupervised learning, model evaluation and feature engineering.
- Generative AI & LLM Applications — Hands-on training in prompt engineering, RAG architecture, and LLM-powered application development.

ADDITIONAL INFORMATION

- Strong analytical and problem-solving ability with a first-principles approach to AI/ML challenges.
- Rapid learner — independently mastered LangChain, FAISS, and FastAPI for production project delivery.