Chandra mouli Bandaru

+91-9390396056 | chandramouli022005@gmail.com | Portfolio | GitHub

Professional Summary

AI Engineer and OCI Certified Generative AI Professional specializing in production-grade RAG architectures and Deep Learning. Expert in optimizing inference latency and memory footprints for LLM applications. Proficient in Python, PyTorch, and deploying scalable AI microservices via FastAPI and Oracle Cloud (OCI).

Technical Skills

- **AI/ML**: Generative AI, LLMs, RAG, CNN, LSTM, PyTorch, TensorFlow, OpenCV, Transformers, Prompt Engineering
- **Data & Infra**: FAISS, Pinecone, LangChain, NumPy, Pandas, SQL, Docker, Git, CI/CD, Linux, Vector Databases
- **Deployment**: FastAPI, Flask, Streamlit, Oracle Cloud (OCI), RESTful APIs, Model Quantization, Pydantic
- **Core Theory**: Data Structures & Algorithms (DSA), System Design, DBMS, Software Engineering, OOPs

Experience

- **FeyNN Labs Consultancy Services** — Remote
  Machine Learning Intern — *Apr 2025 – Jun 2025*
  - **Data Engineering**: Architected robust preprocessing pipelines for high-dimensional datasets, implementing automated handling for missing values, outliers, and categorical encoding.
  - **Feature Engineering**: Engineered 15+ derived features using domain-specific transformations, directly contributing to a 12% improvement in model F1-score during the prototyping phase.
  - **Exploratory Data Analysis**: Performed comprehensive EDA and statistical profiling on datasets of 500k+ records to identify data leakage and class imbalances prior to model training.

Selected Projects

- **Multi-PDF RAG Application** — Python, LangChain, FAISS, Streamlit
  Lead Developer | Live Link — *Jan 2026*
  - **System Design**: Implemented a hybrid retrieval strategy combining semantic search with BM25 re-ranking, improving RAG precision by 18%.
  - **Efficiency**: Optimized embedding dimension and chunking overlaps, **reducing memory footprint by 25%**.
- **Time-Series Forecasting System** — TensorFlow, Pandas, FastAPI
  ML Engineer | Live Link — *Dec 2025*
  - **Deep Learning**: Developed an LSTM model achieving a **Mean Absolute Error (MAE) of 1.2°C** for 4-hour windows.
  - **Scalability**: Deployed forecasting logic as a microservice using FastAPI, handling concurrent user requests for climate data visualization.
- **Plant Disease Detection (CNN)** — OpenCV, Flask, TensorFlow
  Computer Vision Developer | GitHub — *Nov 2025*
  - **Transfer Learning**: Fine-tuned MobileNetV2 with custom dropout layers to mitigate overfitting, achieving 94% validation accuracy.

Selected Coursework

- **Artificial Intelligence**: Neural Networks, Deep Learning, Natural Language Processing, Computer Vision
- **Mathematics for ML**: Linear Algebra, Probability & Statistics, Multivariable Calculus, Optimization Theory
- **Computer Science**: Advanced Data Structures, Database Systems (SQL), Operating Systems, Web Development

Education

- **Vellore Institute of Technology (VIT)** — AP, India
  Bachelor of Technology in CS (Specialization in AI/ML) — *Sep 2023 – Nov 2027*
  - **Academic Standing**: Current CGPA: 8.61/10.00; Focus on Deep Learning and Cloud Orchestration.

Certifications Professional Presence

- **Certifications**: Oracle Cloud Infrastructure (OCI) Certified Generative AI Professional.
- **Web Development**: Designed and deployed a personal portfolio and resume website using modern web technologies to showcase AI projects and UI/UX design principles.
- **Problem Solving**: Active contributor on LeetCode and GeeksforGeeks with 200+ problems solved; focused on Data Structures, Algorithms, and Python-based optimization.
- **Open Source**: Maintained a consistent GitHub presence, documenting end-to-end ML workflows and providing clear READMEs for complex RAG and Computer Vision repositories.