

EBBEJU LANKAPALLI

AI / Machine Learning Engineer | Full-Stack Developer | B.Tech CSE (AI & ML), 2027

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GitHub : github.com/Ebbeju-Lankapalli | Portfolio : ebbeju-portfolio.pages.dev

PROFESSIONAL SUMMARY

Computer Science (AI & ML) undergraduate with hands-on experience across machine learning, deep learning, generative AI, agentic workflows, and full-stack application development. Built projects spanning predictive modeling, classification, regression, clustering, anomaly and fraud detection, recommendation-oriented analytics, document intelligence, and retrieval-augmented generation. Skilled in Python, SQL, scikit-learn, FastAPI, React.js, Node.js, and Express.js, with experience developing data pipelines, evaluating models, integrating LLMs, and delivering user-facing AI applications.

TECHNICAL SKILLS

Programming: Python, SQL, C, C++, JavaScript

Machine Learning & Data: Scikit-learn, CatBoost, PyTorch, Pandas, NumPy, Matplotlib, EDA, feature engineering, classification, regression, clustering, PCA, model evaluation

Generative & Agentic AI: LLMs, RAG, LangChain, LangGraph, Google Gemini, Groq, embeddings, prompt engineering, MCP

Frontend: React.js, HTML, CSS, JavaScript, Vite

Backend & Databases: Python, FastAPI, Node.js, Express.js, REST APIs, PostgreSQL, MongoDB, Supabase, SQLAlchemy, Alembic

Tools: Docker, Git, GitHub, Pytest, Redis, Celery, Jupyter Notebook, Google Colab

SELECTED PROJECTS

Financial Fraud Detection System | [GitHub](#)

- Built a CatBoost-based fraud detection system on the IEEE-CIS dataset; achieved 88.51% ROC-AUC and 47.78% F1 on a chronological held-out test set (96.91% accuracy).
- Implemented a 20-feature inference pipeline with a validation-selected threshold, FastAPI endpoints, PostgreSQL transaction records, and a React analytics dashboard.
- Added a Groq-powered investigation assistant for grounded explanations while retaining CatBoost as the decision layer; documented 21 passing backend tests.

OmniLead AI | [GitHub](#)

- Developed a full-stack omnichannel lead-management platform for customer records, sales pipelines, lead prioritization, follow-ups, and analytics.
- Built React-based interfaces and FastAPI services backed by PostgreSQL, SQLAlchemy, and Alembic for structured lead and customer workflows.
- Designed AI-assisted lead scoring, semantic search, and sales insights using Google Gemini, LangGraph, and vector embeddings; structured background processing with Redis/Celery.

NexClaim Nexus | [GitHub](#)

- Created an AI-assisted insurance claim pre-assessment application with policyholder submission, reviewer assessment, and administrator workflows.
- Integrated Tesseract OCR and PDF extraction to capture document fields, validate policy rules, and classify claim risk as LOW, MEDIUM, or HIGH with confidence scores.
- Built explainable pre-assessment recommendations and human review workflows using FastAPI, Pydantic, SQLAlchemy, JWT authentication, and a web frontend.

EDUCATION

B.Tech, Computer Science and Engineering (AI & ML) | 2023–2027

Dhanekula Institute of Engineering and Technology, Vijayawada, Andhra Pradesh | CGPA: 8.2/10

RELEVANT COURSEWORK

Machine Learning, Deep Learning, Artificial Intelligence, Data Structures & Algorithms, Database Management Systems, Operating Systems