

LIYANA M BAVA

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EDUCATION

Vellore Institute of Technology (VIT), Chennai

Chennai, Tamil Nadu

B.Tech in Computer Science and Engineering with specialization in AI & ML

2021 – 2025

- CGPA: 8.45

EXPERIENCE

Associate System Engineer – Data Science & AI

August 2025 - Present

IBM

Bangalore

- Contributing to enterprise-scale AI and analytics initiatives within the AI Analytics Edge & Automation program.
- Supporting analytics and automation-focused AI solutions aligned with enterprise use cases.

EDA & Insights Team Lead

June 2024 - September 2024

Omdena WUB Chapter

World University of Bangladesh (Remote)

- Led a global team to conduct EDA on 500+ survey responses, deriving 15+ behavioral insights on Gen Z mental well-being through statistical analysis and pattern identification.
- Applied NLP on 10,000+ text entries to enhance chatbot responses, improving user engagement by 30%.

Artificial Intelligence Intern

November 2023 - December 2023

Zenrion Technologies

Bangalore (Remote)

- Built ML models to predict stock replenishment for a pharma client, reducing overstock by 20%.
- Developed and deployed data-driven strategies to optimize inventory control and minimize waste.

PROJECTS

ParaTrackNet: Real-Time Surgical Gland Detection System | *OpenCV, Kalman Filter, CSRT, ORB* | [GitHub](#)

- Achieved 96.78% accuracy and 97.2% F1-score in real-time tracking of parathyroid glands during ICG-assisted thyroidectomy.
- Reduced false negatives by 98% vs. baseline CSRT, with 40ms/frame latency enabling real-time intraoperative performance.

MedAssist AI: Medical Decision-Support Assistant | *Computer Vision, Ollama (Local LLM), Streamlit* | [GitHub](#)

- Built a privacy-first tool that analyzes medical images + symptoms to generate brief, safe guidance with rule-based risk triage (LOW/MEDIUM/HIGH).
- Added specialty-based clinic routing with Google Maps links and safety guardrails (non-diagnostic output).

Strategy Intelligence Tool: Multi-Agent Business Strategy Generator | *LangGraph, Streamlit, Ollama* | [GitHub](#)

- Built a fully local business-strategy generator using multi-agent reasoning (Analyst → Consultant → Strategist) with LangGraph and Ollama, delivering market insights, SWOT/PESTEL analysis, and executive roadmaps using locally served LLMs without cloud APIs.
- Containerized the application post-development using Podman, enabling reproducible local deployment and execution of AI services across environments.

Full-Stack Task Manager | *Golang, Next.js, MongoDB, WebSocket, JWT* | [GitHub](#)

- Developed a task management platform with real-time multi-user collaboration, secure role-based access, and a responsive interface, using event-driven updates and optimized backend APIs for seamless task operations.

TECHNICAL SKILLS

Languages: Python, Java, C/C++, C#, JavaScript, SQL

Frameworks: TensorFlow, PyTorch, Keras, Streamlit, LangChain, LangGraph, CrewAI, Ollama, MLflow, React.js, Next.js, Node.js, WebSocket

Libraries: OpenCV, Scikit-learn, NLTK, Sentence Transformers, Cohere LLM, NumPy, Pandas, Matplotlib, Seaborn, RAG pipelines, Requests

Developer Tools: Git, GitHub, Docker, Podman, Kubernetes, Postman, VS Code, Jupyter Notebook, Google Colab

CERTIFICATIONS

AWS Cloud Practitioner | [Certificate](#)

Microsoft Azure AI Fundamentals | [Certificate](#)

NPTEL: Google Cloud Computing Foundations | [Certificate](#)