

A YASHWANTH

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ML Engineer specializing in deep learning and production ML systems. Built scalable architectures handling real-time data, with expertise in PyTorch, LLMs, and distributed training. Strong focus on model optimization and deployment.

WORK EXPERIENCE

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Machine Learning Engineer

Hyderabad, India

12/2021 - Present

- As a **founding ML engineer**, architected and implemented deep learning solutions that expanded product capabilities from small retail spaces to large-scale commercial buildings and airports.
- Designed and deployed ML systems handling **100+** real-time sensor inputs per minute across multiple HVAC zones, achieving **30%** reduction in energy consumption, **~250,000 electricity units** annually.
- Led end-to-end deployment of our HVAC optimization system at **Hyderabad Airport**, demonstrating over **20%** energy savings in a highly dynamic, multi-zone environment while maintaining thermal comfort; success led to engagements with multiple Indian airports.
- Built an **RAG-based assistant** reducing manual report generation times by **80%**. Used LLMs, FAISS and semantic memory techniques to enable contextual retrieval from energy logs and documentation/
- Developed a **PyTorch** based experimentation framework that reduced experiment cycle time from weeks to days and standardized training and reproducibility across the team.

Consultant

Machine Learning Engineer

12/2020 - 1/2022

- Developed a novel **NLP-based** sequence matching system for analyzing urban mobility patterns across **6500+ individuals**, achieving **92% accuracy** in predicting daily activity patterns.
- Engineered features incorporating socio-economic factors, spatial data, and temporal patterns to optimize urban mobility predictions for a major Indian city simulation project.

EDUCATION

University of Hyderabad

Postgraduate Diploma **Artificial Intelligence and Machine Learning**

Hyderabad, India

08/2021 - 10/2022

Jawaharlal Nehru Institute of Technology

Bachelor of Technology **Computer Science and Engineering**

Hyderabad, India

05/2016 - 09/2020

PROJECTS

Bazaz Dysphagia Disease Prediction and Risk Scoring Model

2024 – 2025

Research project with **Weill Cornell Medicine** for predicting new Onset Dysphagia post-ARS. Built a novel risk-scoring model to predict the presence of dysphagia with **83% sensitivity**.

LLM Learning Assistant - NKR Framework

2025 – Present

RAG-based learning tool applying Feynman Technique + Bloom's Taxonomy for adaptive question generation and spaced repetition to increase retention and make learning interactive. Built pipelines using vision transformers to parse unstructured data that provide context to LLMs.

SKILLS

Programming:	Python, SQL, CUDA C, Triton
ML/DL:	Pytorch, Scikit-Learn, NLTK, LangChain
Cloud/MLOps:	AWS, GCP, Docker, Weights & Biases
Domain Specific:	TinyML, ONNX, EnergyPlus

ACHIEVEMENTS

Winner - Smart India Hackathon, Ministry of Education

Awarded the **first place** for the loan recovery application developed for the Ministry of MSME.

03/2019

IEEEExtreme - All India 81 Rank, IEEE

Participated In IEEEExtreme 2019 and scored a country-wide rank of **81**.

08/2019

Co-Founder, coding.Studio();

Co-founded the programming club of my college with a goal of inculcating coding culture among our fellow students. Organized several bootcamps and competitive programming contests.