Yuval Mehta

AI/ML Engineer — Impact-Focused Innovator — Agentic AI Systems

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Education

NMIMS - Mukesh Patel School of Technology, Management and Engineering   **June 2025**
Bachelor of Technology in Computer Engineering — CGPA: 3.84/4   *Mumbai, India*

Experience

xLM - Continuous Intelligence   **June 2025 – October 2025**
AI/ML Engineer   *Mumbai, Maharashtra*
- Engineered AI agents within **cIV**, automating GxP compliance workflows and expanding task coverage by **65%**.
- Orchestrated LangGraph-based multi-agent systems with retry, memory, and control flows, slashing execution time by **30%** and raising success rate by **40%**.
- Collaborated with engineering and QA to embed traceable logic, enhancing audit-readiness across workflows.

xLM - Continuous Intelligence   **January 2025 – May 2025**
AI/ML Intern   *Mumbai, Maharashtra*
- Constructed a traceability matrix generator, reducing manual overhead by **60%** and boosting consistency by **45%**.
- Prototyped 3 AI-driven document intelligence solutions, accelerating internal validation cycles by **50%**.
- Deployed real-time logging and QA pipelines, achieving **100%** traceability in early-stage toolchains.

IIT Kharagpur   **July 2024 – May 2025**
Machine Learning Intern   *Kharagpur, West Bengal*
- Devised a video feature extractor using autoencoders and GNNs, improving frame processing efficiency by **30%**.
- Optimized hyperparameters to cut training duration by **25%** and raise validation accuracy by **18%**.

JM Financial Ltd   **July 2024 – November 2024**
Data Science Intern   *Mumbai, Maharashtra*
- Streamlined KYC document verification with OCR and deep learning, reducing processing time by **40%**.
- Synthesized dashboards and data pipelines, enhancing insight delivery throughput by **3×**.

Projects

AI Therapist | Python, LangGraph, LLMs, Supabase, Vector DB, FastAPI
- ∗ Architected an LLM-powered therapy agent with emotion control and memory, improving session consistency by **70%**.
- ∗ Refined empathy alignment by **52%** through feedback-driven tuning in simulated conversation loops.

LipReader AI | Python, PyTorch, OpenCV, MLflow, TorchServe, Docker
- ∗ Engineered a lip-to-text model with **87%** character accuracy and **25%** faster inference via TorchServe.
- ∗ Streamlined experiment cycles using MLflow, trimming iteration time by **10%**.

AQI Prediction | Python, PyTorch, GCP, FastAPI, MLOps, WandB
- ∗ Devised a dual-view attention model to forecast AQI and 6 pollutants, achieving **93% R^2** accuracy.
- ∗ Minimized cloud training expenditure by **35%** through targeted optimization and automated sweeps.

WS Buddy | Python, LangGraph, QDrant, Whisper, LLM, Diffusion, Docker
- ∗ Developed a multimodal chatbot integrating voice, image, and context memory, reaching **85%** task success.
- ∗ Elevated engagement by **30%** through dynamic activity updates and real-time interaction.

Technical Skills

Programming Languages: Python, JavaScript, SQL, C, C++, Java
Libraries: Scikit-learn, NumPy, Pandas, Matplotlib, OpenCV, NLTK, SpaCy, SciPy, HuggingFace, Weights & Biases
Frameworks: PyTorch, TensorFlow, Keras, MLFlow, Langgraph, Langchain, FastAPI, Django, Flask, CrewAI
Databases: MySQL, PostgreSQL, Supabase, SQLite, MongoDB, ChromaDB, Redis, FAISS, Qdrant
Tools: VS Code, Jupyter, Kaggle, Git, GitHub, GitHub Actions, DVC, Docker, Nginx, Postman
Cloud Platforms: AWS , GCP

Achievements

Achieved **274th out of 74,824 participants** (Top 1%) in the Amazon ML Challenge 2024, with a team of 3-4 members.
Published a paper at IEEE APCIT 2024: *Examining ML Approaches for Early Diabetes Prediction*.