Umesh Sharma

Bangalore, India

[redacted] — [redacted] — LinkedIn — GitHub

Summary

AI/ML-focused Data Science undergraduate skilled in Python, Machine Learning, and LLM-based systems. Experienced in building end-to-end AI applications including RAG pipelines, automation workflows, and scalable backend systems. Strong interest in Applied AI, GenAI, and real-world problem solving.

Education

B.S. (Honours) in Data Science & Artificial Intelligence 2024 – 2028
Indian Institute of Technology Madras (IITM)

UG in Computer Science 2023 – 2027
PW Institute of Innovation

Experience

AI/ML Intern Dec 2025 – Present
PW LeapX Bangalore, India

- Developing Applied AI systems including LLM-powered applications and end-to-end ML pipelines.
- Building scalable backend services using FastAPI with modular architecture, REST APIs, and authentication.
- Working on real-world NLP and automation use cases integrating AI models into production workflows.
- Collaborating to design, test, and optimize production-ready AI solutions.

Technical Skills

Programming:	Python, SQL, C (basic)
AI/ML:	Regression, Classification, Supervised & Unsupervised Learning
LLM/GenAI:	RAG, Prompt Engineering, LLM Integration
Libraries:	NumPy, Pandas, Scikit-learn, NLTK, Matplotlib, Seaborn
Frameworks/Tools:	FastAPI, Streamlit, n8n, Docker, Git
Cloud/Infra:	GCP, AWS S3
Databases:	PostgreSQL

Projects

Souli – AI-Powered Inner Wellness Voice Companion
Python, Qdrant, Ollama, Whisper, sentence-transformers

- Built an emotionally aware conversational AI system using a multi-phase state machine for structured dialogue flow.
- Designed a Retrieval-Augmented Generation (RAG) pipeline using Qdrant and sentence-transformers for semantic retrieval from counseling data.
- Implemented embedding-based classification to map user inputs into predefined emotional states (energy nodes).
- Developed real-time speech understanding pipeline using Whisper for transcription and LLM-based response generation.

CallAudit – AI-Based Call Quality Analysis System
Python, FastAPI, Azure OpenAI, PostgreSQL

- Built an LLM-powered system for automated call auditing and quality evaluation from transcribed conversations.
- Integrated Azure OpenAI to analyze call transcripts and generate structured quality insights.
- Designed pipelines for processing and analyzing conversational data using NLP techniques.
- Implemented role-based analysis logic to support different evaluation perspectives.

AI-Powered Email Assistant Workflow
n8n, OpenAI (GPT-4.1-mini)

- Developed an AI-driven email processing system for automated classification and response generation.

- Used LLMs to extract sender information and perform semantic categorization of email content.
- Implemented conditional logic for personalized response generation based on extracted context.

AI Personal Assistant using LLM Agents
n8n, Groq (LLaMA 4)

- Built an LLM-based personal assistant capable of automating multi-step tasks using structured tool-calling.
- Designed prompt engineering strategies for reliable task execution and intent handling.
- Implemented deterministic execution logic to reduce ambiguity and improve automation accuracy.

Certifications

- Machine Learning Bootcamp – Udemy
- SQL Certification – Simplilearn