KARTIK GOSWAMI

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GitHub: github.com/kartik703 | Portfolio: kartik703.github.io

PROFILE

AI Scientist with strong applied experience in LLMs, RAG architectures, explainable AI, and NLP-to-meta-language applications. Proven ability to take GenAI models from concept to deployment, with a focus on scalable, efficient, and responsible solutions. Eager to contribute to Zellis mission by embedding intelligent automation and predictive capabilities across the HR and payroll ecosystem.

TECHNICAL SKILLS

Languages: Python, SQL, JavaScript (basic)

Frameworks: Hugging Face Transformers, LangChain, LangGraph, PyTorch, TensorFlow

NLP/GenAI: RAG, Prompt Engineering, Fine-Tuning, RLHF (conceptual), Natural Language to Code/SQL/LaTeX

Speech/Text: Text-to-SQL, Text-to-Diagram, Text Summarization

MLOps: MLflow, FastAPI, Git, CI/CD, Monitoring

Cloud: AWS, Azure (familiar), Docker, REST APIs

Data Engineering: Feature Engineering, Entity Disambiguation, Semantic Search, Vector Databases

EDUCATION

MSc in Data Science and Artificial Intelligence

Newcastle University, UK Sep 2024 - Sep 2025 (Expected)

Specialization: GenAI, HR Automation, Predictive Modeling, Cloud AI

PROJECT EXPERIENCE

AI Assistant: Natural Language to SQL

Built a GenAI tool that translated natural language questions into executable SQL queries.

Stack: GPT-4, LangChain, FAISS, SQL Parsing

RAG-based HR Helpdesk Agent

Deployed an agentic RAG architecture to answer HR-related queries based on internal policy documents.

Stack: LangGraph, OpenAI, Streamlit

LLM Summarizer & Diagram Generator

Created summarization and NL2diagram solution using prompt chaining and Hugging Face transformers.

Stack: T5, Hugging Face, Prompt Engineering

Multimodal Idiomaticity Classifier

Developed explainable text-image classifier trained on contextual idioms.

Stack: PyTorch, SBERT, T5

CERTIFICATIONS

Certified Forage and Grassland Professional (British Airways), Mar 2025

Google: Data Foundations (2024)

IBM: Exploratory Data Analysis for ML (2024)

IBM: What is Data Science? (2024)

GUVI: AI for India 2.0

EXTRA-CURRICULAR & CONTRIBUTIONS

- Organizer: Explainable AI and HR Tech workshops at university AI Club

- Built 15+ AI/ML prototypes with HR-automation relevance

- Contributor to open-source LLM tools integrating natural language to meta-language workflows