

Mohammed Ayaz Ahmed

AI Engineer

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EDUCATION

Osmania University

Bachelor of Engineering in Computer Science

Hyderabad, IN

Aug 2020 – July 2024

EXPERIENCE

AI Engineer

Aug 2024 – Present

Hyderabad, IN

Compreo Business Systems (Compreo.ai)

- Designed and implemented **enterprise-grade Generative AI solutions** using **Azure OpenAI, LangChain, and RAG**, supporting use cases in **RFP analysis, procurement evaluation, and financial reconciliation**.
- Built and deployed a **retrieval-augmented generation (RAG) pipeline** using **Azure Cognitive Search and embeddings**, improving response relevance and reducing hallucinations through optimized document chunking and similarity search.
- Built an **AI-driven WBS & CPM scheduling engine** that converts unstructured project descriptions into dependency-validated schedules, reducing manual project planning time by **90%**.
- Established **Responsible AI workflows** including data privacy controls, prompt auditing, bias risk checks, and explainability mechanisms for enterprise LLM deployments.
- Designed **end-to-end AI pipelines** covering data ingestion, preprocessing, embedding generation, vector storage, inference APIs, and cloud deployment using **FastAPI, Docker, and Azure**.

Machine Learning Engineer Intern

May 2023 – June 2023

Hyderabad, IN

Datapoint IT and Tech Pvt Ltd.

- Built and trained a **Random Forest regression model** for flight price prediction, performing **data preprocessing, feature engineering, and hyperparameter tuning** on historical airline datasets.
- Evaluated model performance using **MAE and R²** and deployed the trained model through a **Flask API** for real-time inference.

PROJECTS

Natural Language to SQL Agent (Query Mate) | *CrewAI, OpenAI, SQL, Python* | [GitHub](#) | [Model Demo](#)

- Built a **multi-agent LLM system** using **CrewAI** that translates natural language queries into **optimized SQL**, enabling conversational analytics over structured enterprise databases.
- Designed agent orchestration for **query understanding, SQL generation, execution validation, and result formatting**, improving accuracy and robustness of generated queries.
- Implemented schema-aware prompting and query validation logic to reduce hallucinated or invalid SQL generation.

Math Agent | *LangGraph, FastAPI, Qdrant (RAG), MCP (Tavily), React* | [GitHub](#)

- Designed a **knowledge-first RAG architecture** using **Qdrant vector database** with confidence-based routing and fallback to **live web search** via MCP tool calling.
- Implemented similarity search, embedding ranking, and response synthesis pipelines to improve answer accuracy and contextual grounding.
- Built a **LangGraph-based workflow** (KB → Web → Synthesis) with guardrails and human-feedback loops for enterprise-grade reliability.

TECHNICAL SKILLS

Languages: Python, SQL, React, C, JavaScript, HTML, CSS

Backend & APIs: FastAPI, Flask, Django, RESTful APIs

Generative AI & Agents: OpenAI, CrewAI, LangChain, Ollama, Mistral, Agentic AI, MCP

RAG & Retrieval: RAG, Embeddings, Vector Search, FAISS, PGVector, Azure Cognitive Search

ML & MLOps: scikit-learn, PyTorch, TensorFlow, Docker (model packaging), GitHub Actions (CI/CD), Azure

CERTIFICATIONS

Microsoft Certifications: Azure AI Fundamentals (AI-900) [[Link](#)], Azure Fundamentals (AZ-900) [[Link](#)], Power Platform Fundamentals (PL-900) [[Link](#)]