

Abdullah AL Muhaimine

Junior AI Engineer (LLM / ML / DL)

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Education

North South University <i>B.Sc. in Computer Science and Engineering (CGPA: 3.44)</i>	2021 – 2025
National Ideal College <i>Higher Secondary Certificate (HSC), GPA 5.00</i>	2018 – 2020
Mohanogor Ideal School <i>Secondary School Certificate (SSC), GPA 5.00</i>	2016 – 2018

Projects

PorteHobe AI (Capstone Project)

- Optimized mathematical reasoning performance, resulting in a 15% increase in accuracy.
- Utilized GSM8K benchmarking to evaluate math reasoning performance against Mathstral and Gemini models.

Multi-Agent LLM Teaching Assistant

- Engineered a multi-agent system using LangGraph for coding and math with task-specialized agents.
- Fine-tuned Gemma 3:4B for reasoning accuracy and deployed locally via Ollama.

Physics RAG Chatbot

- Developed a RAG system using PGVector for semantic retrieval and context-grounded reasoning.
- Reduced hallucinations through retrieval-first answering logic and structured reasoning workflows.

Flood Forecasting AI System

- Combined ML-based flood prediction with LLM-powered conversational insights.
- Integrated predictive outputs with an explanation engine for user-facing data visualization.

Technical Skills

LLMs & GenAI: RAG (Retrieval-Augmented Generation), Multi-Agent Systems, Agent Orchestration

Model Training: Fine-tuning open-source LLMs (Gemma), Reasoning Evaluation, GSM8K

Vector Search: PGVector, Embedding Generation, Semantic Retrieval

Frameworks: LangChain, LangGraph, Ollama, TensorFlow, PyTorch

Backend & DB: Python (FastAPI), REST APIs, PostgreSQL, Vector Databases

Languages

English: Professional (Fluent) | **Bangla:** Native (Mother tongue)