

# MD. MAJIDUL ISLAM

AI&ML · GENAI · AGENTIC AI

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“Building intelligent systems that turn data into decisions and automation into advantage”

## Education

### Southeast University, Bangladesh

BSC. IN COMPUTER SCIENCE AND ENGINEERING

- CGPA: 3.66 / 4.00

Dhaka, Bangladesh

Oct. 2018 – Oct. 2022

### Adamjee Cantonment College

HIGHER SECONDARY CERTIFICATE

- GPA: 5.00 / 5.00

Dhaka, Bangladesh

Aug. 2016

### Muslim Modern Academy

SECONDARY SCHOOL CERTIFICATE

- GPA: 5.00 / 5.00

Dhaka, Bangladesh

May. 2014

## Technical Skills

### EDGE AI & GPU-ACCELERATED SYSTEMS

- Edge Platforms: NVIDIA Jetson
- Parallel Computing: CUDA, GPU memory hierarchy & optimization
- Model Deployment: TensorRT, ONNX Runtime, PyTorch, TensorFlow
- Performance Optimization: kernel fusion, batching, FP16/INT8 quantization
- Real-Time Inference: low-latency vision and sensor processing pipelines

### LLM SYSTEMS & MULTI-AGENT ARCHITECTURES

- LLM Frameworks: Hugging Face Transformers, LangChain, LlamaIndex
- RAG Systems: retrieval design, embedding analysis, vector stores (ChromaDB, Pinecone etc)
- Multi-Agent Systems: CrewAI, LangGraph, task/tool-based agent orchestration
- LLM Ops & Evaluation: Phoenix, Langfuse (tracing, evaluation, cost/latency analysis)
- LLM APIs: OpenAI, DeepSeek, Groq, Ollama

### ML INFRASTRUCTURE & PRODUCTION SYSTEMS

- Backend Services: FastAPI, Streamlit
- MLOps: MLflow, model versioning, experiment tracking
- CI/CD & DevOps: Docker, GitHub Actions, Jenkins
- Cloud Platforms: AWS, GCP, Azure

### DATA & APPLIED MACHINE LEARNING

- Pandas, NumPy, Scikit-Learn

## Work Experience

### TulipTech Limited

AI/ML ENGINEER

Dhaka, Bangladesh

Aug. 2025 - Present

- Built and optimized Edge AI pipelines** on NVIDIA Jetson platforms for low latency inference using TensorRT, CUDA acceleration and FP16/INT8 optimizations
- Developed multimodal AI systems** combining vision, text and document understanding including OCR pipelines for structured and unstructured data
- Implemented Retrieval Augmented Generation (RAG)** using LangChain and CrewAI with vector databases for reliable knowledge grounding
- Designed and orchestrated multi-agent AI systems** using CrewAI and LangGraph for task decomposition, tool usage and collaborative workflows
- Fine-tuned and evaluated large language models** on domain-specific datasets using in-house GPU clusters, optimizing accuracy
- Implemented LLM observability and hallucination analysis** using Phoenix and Langfuse for prompt tracing, evaluation, latency and cost monitoring

## Sysnova Information Systems Limited

AI PROGRAMMER DATA

- **Data Driven AI Solutions:** Built and optimized data driven AI solution with backend
- **AI Backend Development:** Create and Implement FastAPI backend for AI tools
- **Agentic AI Solution:** Designed multi-agent AI systems to perform autonomous reasoning and decision-making tasks
- **Big Data Processing:** Processed large datasets using tools like Pandas, PySpark for real time insights
- **MLOps Implementation:** Set up automated pipelines for model training, testing, deployment and monitoring using tools like MLflow, LlamaIndex
- **LLM Oriented Automation:** Automated reasoning, task execution, and content generation using large language models
- **Multi Agent Framework Integration:** Leveraged frameworks like LangChain, CrewAI and AutoGen to orchestrate collaboration between AI agents

## TulipTech Limited

Dhaka, Bangladesh

SOFTWARE ENGINEER(AI)

Oct. 2022 - Mar. 2025

- **Designed and Deployed AI Solutions** using Python and FastAPI following MLOps best practices for scalable and maintainable machine learning workflows
- **Implemented End to End ML Architecture** for training, testing, deployment and monitoring, ensuring robust model life cycle management
- **Led Cloud & DevOps Integration** with Microsoft Azure to provision, monitor and optimize cloud-based AI infrastructure
- **Engineered FAST APIs and Data Architectures** maintaining performant, secure APIs and managing document based databases (MongoDB)
- **Contributed to Project Management** supporting agile delivery through cross-team coordination and CI/CD pipeline maintenance
- **Multi Agent Framework Integration:** Leveraged frameworks like LangChain, CrewAI and AutoGen to orchestrate collaboration between AI agents

## Bangladesh Navy

Bangladesh Naval Academy,  
Bangladesh

OFFICER CADET

Dec. 2016 - Mar. 2018

- **Leadership & Discipline:** Completed intensive military training, strengthening leadership, teamwork and decision-making under pressure
- **Maritime & Tactical Training:** Acquired hands on experience in naval operations, navigation and tactical combat strategies
- **Strategic Planning & Crisis Management:** Trained to operate effectively in high-stress environments, making quick and strategic decisions
- **Technical & Weaponry Knowledge:** Gained foundational knowledge in naval engineering, weapon systems and maritime technologies
- **Ethics & Professionalism:** Maintained strong discipline, integrity and commitment to service throughout military service

## Extracurricular Activity

### 96.4 Spice Fm

Dhaka, Bangladesh

RADIO JOCKEY

Oct. 2020 - Oct. 2022

- Created content, wrote scripts and conducted live interviews with artists, entrepreneurs and public figures to drive audience engagement.
- Collaborated with producers and broadcast team to ensure smooth broadcasting, while maintaining a lively and energetic on air presence

## Training and Certifications

### PROFESSIONAL

2025	<b>Oracle Certified Foundation Associate</b> , Certified AI Foundation	Oracle University
2024	<b>Agile Project Management Practitioner</b> , Project Management	HP LIFE
2023	<b>Admin Official Certification</b> , Project Management	monday.com
2022	<b>Cyber Security (Ethical Hacking)</b> , Arena Web Security	Dhaka, Bangladesh

### TRAINING

2022	<b>Industrial Machine Learning and Data Science with Python</b> , Hr Venture Bangladesh	Dhaka, Bangladesh
2021	<b>Ethical Cracking and Hacking</b> , SkillNation Bangladesh	Dhaka, Bangladesh

## Projects

### Agentic-RAG

Dhaka, Bangladesh

HR POLICY CHATBOT

2025

- An intelligent AI chatbot for Kazi Farms Group (KFG) policy documents powered by RAG (Retrieval-Augmented Generation), DeepSeek models and ChromaDB vector database.
- This system allows employees to search, understand and interact with policy documents in both English and Bangla—with full source attribution.

## Sales forecasting (Big Data)

Dhaka, Bangladesh

AI SOLUTION – SALES FORECASTING

2025

- Developed a machine learning based sales forecasting system leveraging historical sales data, seasonal trends and external factors.
- Enabled data driven decision making for marketing, inventory and supply chain teams through predictive analytics dashboards.

## Healthcare Data Automation Project

TulipTech Limited

AI AUTOMATION – NHS MEDICINE PARSER

2024

- Developed an automated system to parse and extract critical data from NHS medical records, improving healthcare data accessibility.

## Drug Database Processing System

TulipTech Limited

AI DEVELOPMENT – DMD+D MEDICINE AI PROCESSOR

2024

- Created an AI based engine for analyzing drug metadata from DMD+D to enhance pharmaceutical data workflows and accuracy.

## Care Home Personalized AI Healthcare System

TulipTech Limited

AI SOLUTION ARCHITECT & DEVELOPMENT – CARE HOME PLAN & AI AGENTS

2024

- Designed an AI driven care plan system with intelligent agents
- support personalized monitoring and recommendations for care home residents

## Research

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### Multi Factor Authentication Kerberos

IEEE SEM Vol -12, 2024

INTERNET BANKING CYBER SECURITY IN BANGLADESH

Jan. 2024

- Multi factor authentication solutions for Bangladeshi Banks