

MD. AKASH MIAH

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SUMMARY

AI/ML Engineer focused on LLM-based systems, RAG/CAG pipelines, and scalable orchestration tools. Experienced with LangChain, Langflow, HuggingFace, Gemini API, and vector search (FAISS). Adept at deploying real-time AI workflows, prompt engineering, semantic search, and integrating AI systems into full-stack apps.

SKILLS

Languages: Python, Java, C++, C

LLM/GenAI: LangChain, HuggingFace, Gemini API, Prompt Engineering, Tokenization, OpenAI, Sentence Transformers

RAG/CAG Systems: FAISS, ChromaDB, RAG Pipelines, PDF/TXT Ingestion, Chunking, Reranking

ML/AI: PyTorch, Scikit-learn, YOLOv8, RT-DETR, Transformers, ONNX

Deployment: RESTful APIs, Docker, Git, Google Colab, PyQt5, CI/CD

Other Tools: Jupyter, Pandas, NumPy, YouTube-DL

EDUCATION

North South University, Dhaka

Graduated: 2025

B.Sc. in Computer Science and Engineering

CGPA: 3.00

EXPERIENCE

Junior AI Developer

Join Venture AI, Dhaka

2025 – Present

- Designed and deployed RAG pipelines using LangChain, FAISS, and Gemini API for educational and business use cases.
- Developed LLM-based agents with function calling and tool integration.
- Orchestrated LLM workflows using LangChain Tools and APIs, evaluated open-source models (LLaMA 3, Gemma).
- Built modular, API-ready systems for real-time interaction using Python.

PROJECTS

RAGbot - LLM-Powered RAG Assistant

2025

LangChain, FAISS, Gemini API, Sentence Transformers, PyQt5, OLLAMA

GitHub: github.com/mohaakash/RAG-bot

- Created a GUI-based assistant that answers queries from documents using local and remote LLMs.
- Integrated embedding, chunking, reranking, and semantic search pipelines with LangChain orchestration.

AI-Based Grocery Checkout System

Jan 2025 – Apr 2025

Python, OpenCV, YOLOv8, RT-DETR

GitHub: github.com/mohaakash/AIproductcheckoutsystem

- Developed a vision-based checkout system using object detection and GTIN mapping.
- Simulated barcode scanner behavior with real-time detection and class mapping (696 ms/frame, 0.995 mAP@50).

Social Media Post Maker from Video/Audio

2025

Python, PyQt5, Whisper, Gemini API, YouTube-DL

GitHub: github.com/mohaakash/video-audio-to-social-media-post-maker

- Transcribed and summarized audio/video to generate social content (threads, posts).
- Applied Whisper + Gemini API to automate content generation based on extracted topics.

Autonomous Chemical Spraying Robot

Jan 2024 – Dec 2024

YOLOv8, PyQt5, OpenCV, NodeMCU

GitHub: github.com/mohaakash/USR

- Used YOLOv8 for visual crop detection and microcontroller-controlled spraying.
- Built PyQt5 GUI for real-time operation and monitoring.

INTERESTS

GenAI Agents
LangChain & Langflow
RAG/CAG Pipelines

Agentic AI
Prompt Engineering
Knowledge Graphs