AJOY PRASAD

Malda - West Bengal ◇ +91-9382107895 ◇ ajoyprasad2002217@gmail.com ◇ linkedin ◇ github ◇ leetcode

EDUCATION

M.Tech in Artificial Intelligence (CSE), National Institute of Technology Bhopal (NIT Bhopal) July 2025
CGPA:7.14

B.Tech in Mechanical Engineering, St. Mary's Technical Campus Kolkata June 2022
CGPA: 8.32

SKILLS

Languages	Python, C++, MySQL
Specializations	Agentic AI, RAG Pipelines, LLM API Integration, NLP, Machine Learning, Deep Learning,Computer Vision
LLM & Agent Frameworks	LangChain, LangGraph,Gemini APIs, Milvus, FAISS, Hugging Face Transformers
Backend & APIs	FastAPI, RESTful API Development, Docker, CI/CD
Libraries	Scikit-learn, TensorFlow, OpenCV, NLTK, NumPy, Pandas
Tools & Platforms	Git,GitHub Actions,Docker,VS Code

EXPERIENCE

AI Developer –**Helios Infotech**

- Developed an AI blog writer backend system using agentic AI workflows with LangChain, LangGraph, FastAPI, React agents, and a web search tool

PROJECTS

Satellite Image Classification App October 2024 GitHub

- Developed lightweight CNN models with 94% accuracy and 30% fewer parameters, optimized for real-time use on low-resource platforms using channel separation and SE blocks

Movie Recommendation System March 2024 GitHub

- Developed a content-based recommendation system with cosine similarity and NLP, featuring a Streamlit interface for personalized multi-feature selection.
- **Tools & Technology:** Python, Streamlit, Pandas, HTML, CSS.

RAG-based PDF QA System December 2024 GitHub

- Application link
- Built a Streamlit app for project-based PDF text extraction, semantic search using SBERT embeddings with Faiss, and question answering via Mistral API. Added project management, caching, and efficient text chunking.
- **Tools & Technology:** Python, SBERT, Hugging Face, Mistral API, Streamlit.

RAG Textbook Retrieval and Q&A System July 2024 GitHub

- Extracted and chunked textbook content, embedded with SBERT, clustered using GMMs, and created RAPTOR index with BERT in MILVUS, incorporating query expansion for accurate retrieval.
- **Tools & Technology:** Python, SBERT, GMMs, BERT, MILVUS, Docker.

ACHIEVEMENTS

GATE Qualified with a score of 496