

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, Docker, Hugging Face, VS Code

EXPERIENCE

AI Developer – **Helios Infotech**

- Developed agentic AI workflows using LangChain, LangGraph, and React agents for autonomous multi-step reasoning and tool usage.
- Deployed FastAPI-based APIs integrated with Gemini/GPT models and optimized retrieval indexing and clustering techniques.

PROJECTS

Satellite Image Classification App October 2024 [GitHub](#)

- Built a Streamlit app for satellite image classification using VGG16, achieving 91% validation and 80% testing accuracy, with normalization and augmentation improving performance.
- Tools & Technology:** Streamlit, VGG16, Keras, Google Colab (T4 GPU).

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](#)

- 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, Gemini 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