

SKILLS

- **Programming Languages:** Python, SQL, Bash
- **Data Science and ML:** Pandas, NumPy, Scikit-learn, XGBoost, Matplotlib, Seaborn, EDA, Feature Engineering
- **Deep Learning and NLP:** PyTorch, Hugging Face Transformers, Attention Mechanism, Seq2Seq, Fine-tuning LLMs (LoRA, QLoRA, PEFT, RHLF), Embedding Generation, Abstractive Summarization, Named Entity Recognition (NER),
- **Generative AI and Vector DBs:** LangChain, LangGraph, RAG (Corrective and Adaptive), RAGAS, ChromaDB, Weaviate, Pinecone, Groq, Ollama, Handling API Keys, GPT-4, Claude
- **MLOps and Deployment:** Modular CI/CD Pipelines, MLflow, Alibi-detect, DVC, Docker, FastAPI, Flask, Jenkins, CircleCI, GitHub Actions, BentoML, Dagshub, Airflow, Prometheus, Grafana, GCP (GCS, GKE, Cloud Run), AWS (Basic)
- **Developer Tools and APIs:** Git, GitHub, VS Code, Cursor, REST APIs, Postman, Streamlit, Gradio
- **Soft Skills:** Communication, Problem-Solving, Collaboration, Rapid Execution

PROJECTS

Automated Arxiv Paper Summarizing Workflow with RHLF

- Developed a modular pipeline using **LangGraph** for web scraping, rewriting, and reviewing arxiv research papers.
- Implemented a **decider node** for automated decision-making, routing content for further review or direct approval.
- Integrated a **human-in-the-loop node** to enable manual feedback and iterative improvement of rewritten content.
- Saved approved and processed text (metadata) to **Pinecone** with semantic embeddings for efficient retrieval.
- Designed extensible architecture for adding new nodes (e.g., sentiment analysis, keyword extraction) and robust error handling. Used **LangGraph Studio** for real-time debugging and monitoring

Hotel Reservation Cancellation Prediction

- Built a modular **MLOps pipeline** for hotel booking cancellation prediction, achieving **88% accuracy**.
- Ingested the model training data from **Google Buckets** with a python script.
- Automated model training and deployment with **Jenkins**, **Docker**, and **Flask API** on **GCP Cloud Run**.
- Managed experiments and model versions using **MLflow**, and ingested data from **Google Cloud Storage**.
- Integrated **CI/CD** for continuous delivery, with robust exception handling and performance logging.

LangGraph Blog Generator API (MCP-enabled SEO Blog Writer)

- Built a FastAPI + LangGraph service to auto-generate SEO-oriented long-form blogs with optional multilingual output (English, Hindi, French, Czech) via modular nodes for title, content, and translation.
- Added an MCP server exposing tools ; validated with MCP Inspector and connected to Claude via MCP.
- Exposed REST endpoint returning structured JSON for testing API; used **Postman** for debugging and monitoring.
- Integrated with LangGraph Studio using `langgraph.json` and `graph` to run the compiled graph interactively.

Abstractive Text Summarizer (Pegasus)

- Fine-tuned **Pegasus model** using **Hugging Face** on dialogue data (Samsum) for abstractive summarization.
- Developed a full **Modular LLM pipeline** with YAML-based config, modular code, and reusable stages.
- Achieved **ROUGE-L score of 42+** with evaluation tracked using **Hugging Face metrics**.
- Included prediction pipeline script and **Streamlit** interface for summarizing unseen text.

CERTIFICATIONS

- Google Data Analytics – Coursera
- Deep Learning Specialization – Coursera
- Machine Learning, NLP, Transformers - Udemy
- Unified Mentor - Learning Internship
- MLOps Fundamentals – Udemy
- Advanced MLOps - Udemy
- Generative AI (LangChain) – Udemy
- PyTorch - Udemy
- Agentic AI (LangGraph) - Udemy

EDUCATION

Amity University, Greater Noida
Master of Computer Applications (MCA)

Jul 2023 – Jul 2025

AlmaBetter (Data Science and AI)
Certification Program in Data Science and AI

Dec 2024 – Present