

# Ishita Kokil

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## EDUCATION

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### Northwestern University

Master of Science in Machine Learning and Data Science

Evanston, IL

September 2024 – December 2025

### Michigan State University

Bachelor of Science in Computer Science, Minor in Cognitive Science

East Lansing, MI

August 2020 – May 2024

Bachelor of Science in Data Science

August 2020 – May 2024

## TECHNICAL SKILLS

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**Languages:** Python, SQL, C++/C, R, JavaScript, HTML/CSS

**Machine Learning & Data:** PyTorch, TensorFlow, Scikit-Learn, JAX, Keras, Pandas, Numpy, Apache Spark, Hadoop, ETL Pipeline, Transformer Models, LLMs, Langchain, RAG, Prompt Engineering, Pinecone, Reinforcement Learning

**Cloud & Tools:** AWS, GCP, Docker, Airflow, Flask, React, Unix, Linux, Tableau, Jupyter

## PROFESSIONAL EXPERIENCE

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### AI Research Intern

Northwestern University - Center for Deep Learning

June 2025 – October 2025

Evanston, IL

- Designed and implemented a Guardrails-backed validator suite for a RAG assistant using LangGraph + OpenAI and reduced unsafe/invalid answers by 25% across evaluation runs
- Built a modular evaluation framework + Streamlit UI to track answerability, routing accuracy, toxicity (precision/recall/F1); improved validator pass rates via before/after prompt experiments and query rewrites

### Data Science Intern (Practicum)

Mintel

September 2024 – June 2025

Chicago, IL

- Developed data processing workflows to identify trends across 37+ consumables flavor categories for analytics tools
- Applied time series forecasting models to predict demand, improving accuracy with 63% lower MSE
- Built SQL and Python ETL/ML pipelines for a self-service platform, deployed via chatbot for real-time insights

### Machine Learning Engineer Intern

Michigan State University - Institute of Quantitative and Health Sciences

May 2024 – September 2024

East Lansing, MI

- Engineered real-time ML inference APIs using Flask on Jetstream2 cloud; CUDA optimized for sub-10s latency
- Deployed scalable, fault-tolerant inference on high-performance GPU clusters, sustaining 99% uptime under load
- Built data pipelines to process and transform DICOM images, delivering production outputs in under 10s

### Software Engineer Intern

Carrier

May 2023 – August 2023

Syracuse, NY

- Integrated ML-driven control algorithms in embedded power electronics, collaborating with cross-functional teams
- Developed predictive models with 91%+ accuracy to detect uphill vs. downhill driving, optimizing Energy Management Systems (EMS), deploying them to microcontrollers via C/C++, MATLAB, and Simulink

### Data Science Intern

DTE Energy Company

January 2023 – May 2023

Detroit, MI

- Developed automated data processing pipelines in Databricks using SQL, Python, and Spark to handle 500K+ operational and social media records, reducing review time by 75%
- Integrated NLP, speech analytics into QA workflows and built Power BI dashboards for 50+ organizational leaders

## PROJECTS

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### Agentic AI Platform for Job Search Intelligence

- Developed a distributed RAG pipeline using LangGraph, Pinecone, and Ollama for semantic search
- Integrated LLMs(OpenAI, HuggingFace) for contextual retrieval & summary, cutting job research time by 60%

### Cloud-Native ML Pipeline for Satellite Cloud Classification

- Built a scalable ETL system in Python, Apache Spark, and Docker to preprocess and classify satellite clouds
- Automated ingestion, feature engineering, and model training in AWS S3, reducing processing from hours to mins

## PROFESSIONAL DEVELOPMENT AND LEADERSHIP

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Society of Women Engineers (SWE), Rewriting the Code (RTC), Women in Engineering, Women in Computing