

# Kshitij Chaturvedi

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## EDUCATION

**Guru Gobind Singh Indraprastha University**

Nov 2021 – Aug 2025

- Bachelor of Technology in Electronics and Communication Engineering (GPA: 9.0/10.0)

## EXPERIENCE

**Data Analyst**, DLC Group of Companies – Dwarka, Delhi

Jan 2025 – April 2025

- Built predictive models with Python and SQL to improve forecasting and cut query time by 30 minutes daily.
- Deployed an Adaptive-RAG system with re-ranking, hallucination grading to automate query resolution and boost team efficiency by 60%+.
- **Used:** NumPy, Pandas, SciPy, Scikit-Learn, Statsmodels, Matplotlib, Seaborn, SBERT, FAISS, Llama3.2 2B, Tavily, Beautiful Soup, Selenium, Hugging Face, Transformers, PyTorch, LangChain, LangGraph, DVC, FastAPI.

**Data Analyst Intern**, Rau's IAS Study Circle – Rajendra Place, Delhi

July 2024 – Aug 2024

- Analyzed 20k+ weekly student records to identify dropout and retention trends across 15+ subjects.
- Revealed a 25% higher retention rate linked to faculty strategies, directly shaping curriculum planning.
- **Used:** SQL, Python, NumPy, Pandas, SciPy, Scikit-Learn, TensorFlow, Statsmodels, Matplotlib, Seaborn.

**SDE Intern**, Radian Arc (Syntheim) – Remote

Feb 2024 – July 2024

- Built multilingual AI health assistant, reducing computation by 35% through model distillation and batching.
- Led an 8-member team to deploy and optimize the system, reducing per-query costs by 40% with caching.
- **Used:** Python, SBERT, ChromaDB, Hugging Face, LangChain, PyTorch, OpenAI, SpaCy, Flask, React Native, Docker.

## PROJECTS

**Adaptive RAG for Enterprise Support Systems** [Research Paper]

[Link](#)

- Built a high-accuracy RAG pipeline, outperforming baselines with 28% lower latency.
- Processed 1K+ agri-docs and 100+ queries using spaCy and OCR.
- **Used:** Python, PyTorch, SBERT, FAISS, CHromaDB, TF-IDF, BM25, DPR, BART/T5 (Llama3.2, Qwen3), spaCy, Tesseract OCR, LangChain, LangGraph, Hugging Face Transformers, FastAPI, DVC, Docker.

**Cloudburst prediction system using signal decomposition** [Research Paper]

[Link](#)

- Designed a time-series pipeline using LSTM, GRU, CNN-1D, and TFT with EEMD-based signal decomposition.
- Integrated ESP32 IoT sensors for real-time weather data to enable high-accuracy forecasting.
- **Used:** Python, PyTorch, TensorFlow, Statsmodels, Scikit-learn, Pandas, Matplotlib, Seaborn, DVC, Flask, Docker, ESP32, DHT11, Beta Rain Sensor.

## SKILLS

**Languages:** Python, SQL, JavaScript

**Concepts:** OOPs, DBMS, Computer Networks, Data Analytics, Visualization, ML (Supervised, Unsupervised), Deep Learning, NLP, CV, LLMs, GenAI, Transfer Learning

**Libraries:** NumPy, Pandas, Matplotlib, Seaborn, Scipy, Statsmodels, Scikit-Learn, TensorFlow, PyTorch, Transformers, LangChain, OpenCV, Flask, FastAPI, Selenium, BS4, Requests, PyTest

**Technologies:** MySQL, Git, GitHub, Postman, Docker, DVC, Ollama, Excel, Canva, Figma, Notion, Next.js, Tailwind CSS

## ACHIEVEMENTS

- **Judged** BVP Hex Hackathon (Nov '24); **Mentored** 5+ hackathons across Delhi.
- **Qualified SIH 2023 & 2024** under ML and Climate tracks.
- **Top 10** in HackMait'22 (MAIT) & EmpowHer Hack (IEEE-IIIITD); **Top 30** in Vihan 2.0 (IEEE-DTU'23).
- **Machine Learning Specialization** (Supervised, Advanced, Unsupervised ML) by DeepLearning.AI (Andrew Ng) and IBM Certified **Artificial Intelligence Analyst**.
- Held leadership roles as **Management Head** at ECELL-ADGITM and **Instrumental Head & Treasurer** at Swaranjali-ADGITM.