

Aryan Gupta

✉ aryan.gupta210302@gmail.com | [in](#) aryangupta | [G](#) aryangupta | 📞 +91-9981060403

Education

Indian Institute of Technology Kharagpur

Kharagpur, India

Integrated M.Sc. Economics (CGPA: 8.08/10)

2020 – 2025

Work Experience

Eightgen.ai | *AI Engineer Intern*

Dec 2024 - Feb 2025

Multimodal Financial RAG System

- Developed and deployed a **multimodal financial RAG system** using **Colpali embeddings** on **Qdrant Vector DB**.
- Optimized retrieval for **20,000+** documents, achieving **40x speed** improvement using **mean pool embeddings**.
- Deployed **inference servers** on **AWS EC2** and **payload filtering** with **Qdrant clustering**.
- Integrated **OpenAI LLM APIs** to deliver **contextual query responses** from retrieved data.

Financial AI Agents Deployment

- Developed **Financial AI agents** for a chatbot using **LangGraph** and **LangSmith**, for intelligent query resolution.
- Engineered a scalable **REST API** with **asynchronous production-grade code**, integrating **async SQLite** for **long-term memory** retention and conversation continuity.
- Built **Selenium based REST API** for **automated real-time stock market financial data** web scraping.

Walmart Global Tech | *Software Development Engineer Intern*

May 2024 - July 2024

- Integrated **Prometheus server & Grafana** on **Walmart Cloud Native Platform**, enhancing monitoring abilities.
- Developed **custom metrics** and **Grafana dashboards** for a **Spring Boot** application, improving system visibility.
- Created a **RESTful API** for **PUT calls** to update data in the service portal, streamlining data management.

Indian School of Business | *Machine Learning Engineer*

Feb 2024 - March 2024

- Engineered the development of a **SOTA text clustering system** pioneered for **open-ended complaints analysis**.
- Utilized **k-means** for optimal k, **HDBSCAN** for flexible clustering, and **DistilBERT-based word vectorizations**.
- Improve complaint categorization using **Silhouette** and **Adjusted Rand Index scores** for better clustering.

Projects

FashionGAN | *Fashion Image Generation by custom GAN* | **Computer Vision**

Sept 2023

Objective: Develop a fashion image generating GAN from scratch using TensorFlow and Python

- Crafted a training dataset from **MNIST Fashion dataset**, enhancing **data visualization** with **Matplotlib**.
- Developed **Discriminator & Generator** architecture, using **Convolutional & Sequential** neural networks.
- Designed custom **training pipeline**, prioritizing **Discriminator training** before **Generator**, for optimal **convergence**.
- Trained model for **10,000+ epochs**, employing a **Binary loss function** and the **Adam optimizer** for robust training.

COVID-19 Help Seeking Tweet Classification | **NLP**

March 2023

Objective: Developed tweets classifier using semi-supervised learning & BERT LLM based classifier

- Developed **NLP models** to classify **COVID-19 help-seeking content** from **70k unlabeled tweets** enhancing accuracy.
- Conducted extensive **EDA**, **feature engineering**, and preprocessing, including **tokenization** and **lemmatization**.
- Developed & evaluated model pipelines like **BERT LLM**, **Naïve bayes** & **SVM**, achieving **74% validation accuracy**.

Competitions

Inter IIT Tech Meet 13.0 | **Next-Gen Team Builder with Predictive AI** | **Dream 11** | **Gold**

Jan 2025

- Built predictive ML pipeline as part of gold-winning team for fantasy point forecasting and Dream11 team optimization.
- Built role-specific **XGBoost** models using **60+ engineered features** (trend, venue, forecasting) from **17K+ matches**
- Achieved **23.98%** top-5 player match and **6.95 ACP**, outperforming baselines; used **TabNet**, **IsolationForest**, and ensemble stacking (**XGBoost**, **LightGBM**, **CatBoost**).
- Integrated **GenAI chatbot**, dashboard UI, & player comparison tools to enhance interpretability & user experience.

Technical Skills

Programming Languages

C/C++, Python, SQL, Java, HTML, CSS

Frameworks & Databases

Tensorflow, Langsmith, Langchain, Pytorch, Hugging Face, Mysql, SQLite, Fastapi

Tools, Platforms & libraries

Linux, Git/GitHub, Docker, AWS EC2, Pandas, Sklearn, Matplotlib, Keras, Numpy, NLTK

Positions of Responsibility

Kharagpur Data Analytics Group, IIT Kharagpur | *Senior Member*

2022 - 2023

- Organized & coordinated workshops on Machine Learning & **GAN** assisted **Neural Art** for students across country.
- Organized national Kharagpur Data Science Hackathon with 3500+ registrations & sponsored prize pool of 1.25 lac INR.