# Anmol Bhardwaj

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# EDUCATION

## Delhi Technological University

November 2022 - August 2026

• Grade: 8.46

#### Experience

## **Data Engineer**

February 2024 – April 2024

#### RizzAI

- Developed a scraping pipeline to fetch data from multiple online e-commerce platforms.
- Implemented an asynchronous script for CRUD operations in Postgres on a large scale.
- Automated the entire data acquisition pipeline.

## AI Research Intern

December 2023 – February 2024

GoldSmiths University, London

- Developed an ensemble for classification of MBTI personality traits with multimodal inputs using RoBERTa and Random Forest Regressor.
- Achieved 95.8% accuracy, handling the high imbalance using SMOTE and other NLP augmentation strategies like lemmitization.

### Projects

#### RailMadadv2

- An end-to-end complaint management system for Indian Railways.
- Utilizes Python, MongoDB, and Parallel Programming, and features a chat-bot developed using an agentic framework with Gemini as core LLM and a 2-click form interface for registering complaint and reducing the registration time by 50%.
- Supports multilingual and multimodal inputs.
- Complaint categorization and sub-categorization done with LLaMa-3.3-70B achieving 99.8% accuracy.
- Employs SOTA multi-modal models for extracting description from multi-modal inputs.
- Smart reassignment of complaints amongst staffs (smart queues) of the same department to increase customer satisfaction and resolution rate.
- Implements polling and complaint aggregation based on contextual similarity to update complaint priority and reduce starvation.

## SocioTrackr

- Developed a web application that performs analysis on texts, images, and videos to provide an insight on viewer
  perception about social media profile.
- Works with Instagram, YouTube, and Reddit.
- Deployed SOTA LLM models on Google Cloud to perform sentiment analysis, emotion classification, and other video and image analysis using CLIP and BLIP architectures.

#### **KeyValueDB**

- A key-value LSM tree database developed from scratch using C++.
- Employed skip list data structure for memTable and write ahead log for availability.
- Managed concurrency using mutex locks, between write, memTable save to disk, and compaction operations, thus
  providing consistency to database state.
- Used tombstone approach for persisting deletion of data in the database.

## SKILLS

Languages: Python, C++, Javascript(Basic), SQL

Frameworks: FastAPI, Flask, Django, Express.js, React.js, Tensorflow, Pytorch, SQLAlchemy, huggingface

Certifications: Machine Learning Specialization, MLOps specialization

Courses: Data structures and Algorithms, object oriented programming, Operating systems, Computer Networks, Distributed Systems, Database management systems