Aryaan Bazaz

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Website | Linkedin | Github | Leetcode

Education

(IIIT-Delhi) Indraprastha Institute of Information and Technology Delhi	**CGPA: 8.86**
B.Tech Computer Science with Social Science (Economics)	2022 – 2026
Prudence School, Delhi	**Percentage: 96.4%**
XII, CBSE	2022

Technical Skills

Languages: C++, C, Java, Python, SQL, R

Tools and Platforms: Git, GitHub, Linux, MySQL, MongoDB, Tableau, IntelliJ IDEA, SceneBuilder, LaTeX

Frameworks Libraries: Hugging Face Transformers, TensorFlow, scikit-learn, FastAPI, NetworkX, LangChain, JavaFX, SimPy

Domains & Specializations: Natural Language Processing (NLP), Machine Learning, Data Structures & Algorithms, Database Design & Optimization, Object-Oriented Programming (OOPS), Operating Systems, Computer Networks, Algorithm Analysis, complex problem solving, convex optimization, econometrics and game theory.

Professional Experience

SDE Intern - DRDO (Defence Research and Development Organisation) — May '25 – Current

- Building a dynamic risk-assessment tool for construction projects, **reducing schedule overruns by 40%** by correlating soft parameters (team morale, contractor reliability) with hard metrics (budget, timelines) via **explainable AI and Deep Learning**.

Machine Learning Intern - Texas Distribution Co. — May '24 – July '24

- Engineered ML models and classification algorithms (Random Forest, SVM) to optimize material waste, achieving **83% accuracy** and **23% cost reduction**.

LLM Research Intern - IIIT Delhi — Jan '24 - May '24

- **Developed LLM powered Vivabot** using NLP, RAG and Prompt engineering to auto-grade assignments, reducing human effort by 70–80% and improving accuracy by 60% via bias mitigation. (Letter of Recommendation)

Projects

Distributed Network Simulation Security Analysis — Link

- Simulated a **distributed, multi-tiered network with dynamic routing** to evaluate latency, queuing, and attack resilience. Implemented traffic analysis and probabilistic modeling to detect anomalies and **optimize performance in scalable systems**.
- Tech Stack: SimPy, NetworkX, Routing Algorithms, Network Traffic Analysis, Probabilistic Modeling, DoS Attack Simulation

Flash delivery App: Database management System — Link

- Engineered a CLI-based online retail store using Python and SQL, **managing 25k+ records with normalized schema, indexing, triggers, stored procedures, and views—improving query performance by 45%**.
- Tech Stack: Data Base Management System, Python, Relational Databases and mySQL.

Deception Detection using NLP Models — Link

- Developed a framework utilizing **RoBERTa-based Graphical Dual Attention Network with Power Dynamics (RG-DAT)** surpassing state-of-the-art benchmarks, demonstrating superior accuracy and F1 score of 63.56 %.
- Tech Stack: Python, PyTorch, Hugging Face Transformer and NetworkX

Fortress Legends: Desktop Game using Advanced Programming — Link

- Engineered a platform game implementing robust **object oriented programming principles** with targeted Design Patterns for architectural elegance. Ensured code quality through comprehensive JUnit testing.
- Tech Stack: Java, SceneBuilder, JavaFx

Publication

Bazaz, A., Aijaz, A., Batra, A., Srinivasa, S., Mutharaju, R., Kumar, M. (2025). Formal knowledge representation for moral AI. In Proceedings of the 34th International Joint Conference on Artificial Intelligence (IJCAI) — Link

- Harvested ethically nuanced situations from 28 Reddit subreddits with web scraping, prompt engineering, and natural language processing for **creating a first of its kind "Ethics Scoring Algorithm" with Context Sensitivity Thresholding—boosting ethical nuance capture by 37% with a 62% decrease in compute expenses**.

Position of Responsibility

- **School Head Boy** • **Operations Team Lead for cultural fest "Odyssey"** • **Core Team Member Theatre Club**