Sainy Mishra

22BLC1033 | sainymishra.1702@gmail.com | +91 9310687064 | LinkedIn | GitHub | LeetCode

Education

Vellore Institute of Technology, Chennai, B.Tech in Electronics and Computer Engineering — 2022 – 2026
- CGPA: 8.54

Apeejay School Panchsheel Park Sheikh Sarai, Delhi, Class XII (CBSE) — 2022
- Percentage: 92.6%

Apeejay School Panchsheel Park Sheikh Sarai, Delhi, Class X (CBSE) — 2020
- Percentage: 96.6%

Technical Skills

Machine Learning: Python, Numpy, Pandas, Scikit-learn, XGBoost, SARIMA, Model Evaluation, Hyperparameter Tuning

Deep Learning: CNN, SNN, TensorFlow, NLP, LLM, GAN, Knowledge Distillation

Frontend: Canva, Figma, HTML, CSS, JavaScript

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

Database: SQL, MongoDB

Version Control / CI: Git, GitHub, GitHub Actions

Certifications

- AI-900 Microsoft Azure AI Fundamentals **(Score: 850/1000)**
- Complete AI and ML Data Science Bootcamp (Udemy)
- NPTEL Python for Data Science (60%)
- Machine Learning A-Z: AI, Python R + ChatGPT Prize (Udemy)

Projects

Graph-Based LLM Document Assistant — July 2025 - Present
- Built a **graph-based RAG pipeline** integrating LLM for contextual retrieval
- Explored knowledge **graph construction** and retrieval methods to enhance LLM responses

Rare Lung Pattern Detection with GAN-based Augmentation — July 2025 – Present
- Designing a **conditional GAN** pipeline to synthesize **fibrotic CT scan** patches and balance post-COVID datasets
- Training a 3D CNN classifier to improve sensitivity and ROC-AUC in detecting pulmonary fibrosis

BB84 QKD Simulation — March 2025
- Simulating the **BB84 quantum key distribution protocol** with eavesdropper detection via QBER
- Building **classification models (Neural Network, Random Forest, XGBoost)** trained on 10,000+ samples to detect attacks

Rainfall Prediction via Time Series Forecasting — January 2024
- Engineering a **hybrid SARIMA-XGBoost model** to forecast drought and water scarcity in 50+ regions, supporting precision agriculture
- Developing a web platform using **Streamlit, Folium, and Leaflet** for real-time map visualizations via REST API

Leadership Experience

Advisory Board Member, Mathematics Club, VIT Chennai — July 2025 – Present
- Guiding strategic planning, mentorship, and event execution for 90+ member club.
- Collaborating with faculty and alumni to secure resources and expand networking opportunities for members.

Vice President, Mathematics Club, VIT Chennai — July 2024 – July 2025
- Leading a 90+ member team organizing events for **TechnoVIT and Vibrance**, with 200+ participants across technical and cultural fests
- Conducted 4 chess tournaments and a hackathon involving 20+ teams, enhancing team building and leadership in juniors

Achievements

- Winner of **Sponsor Track at FrostHacks 2024** (MLH + IARE Hyderabad), beating 100+ teams
- Ranked **Top 120 out of 547** teams in SIH 2024 Internal Hackathon (VITISH) for Agricure