Harshdip Saha

+91-9228182636 harshdipsaha@gmail.com linkedin.com/in/Harshdip-saha github.com/HARSHDIPSAHA

Education

Netaji Subhas University of Technology - 8.78 GPA — **Aug. 2023 – Aug. 2027**
Bachelor of Technology in Computer Science and Engineering — *Delhi, India*

Kendriya Vidyalaya No.2, Delhi Cantt - 95.6% — **April 2022 – April 2023**
Class XII — *Delhi, India*

Kendriya Vidyalaya No.2, Delhi Cantt - 98.4% — **April 2020 – April 2021**
Class X — *Delhi, India*

Relevant Coursework

- Data Structures
- Algorithms
- Automata Theory
- DBMS
- AI
- Machine Learning

Projects

RECAP-Net: Classification of Active Progression | *PyTorch, MONAI, GANs, Swin UNETR, 3D CNNs* **Sept 2025**

- Proposed an end-to-end pipeline for the **BraTS-PRO 2025 Challenge**, performing longitudinal glioblastoma response classification under the **RANO criteria**, integrating **Swin UNETR** segmentation with an ensemble of 3D ResNet, DenseNet, and EfficientNet classifiers.
- Applied **z-score normalization**, multimodal fusion of baseline/follow-up MRIs, and a **3D spectrally normalized GAN** for class balancing, achieving **3D-SSIM: 0.92 ± 0.03** and **KL divergence: 0.037 ± 0.004**.
- Achieved **94.0% balanced accuracy**, **94.6% F1-score**, and **96.0% AUROC**, outperforming individual backbones (Paper).

Accurate Precise Timely | *Machine Learning, XGBoost, LSTM, ARIMA, Greedy scheduling* **Mar 2025**

- Developed an AI-powered system that schedules doctor appointments based on patient condition severity and predicted consultation time, while aligning with doctor availability and shift timings.
- Built an admin panel for real-time hospital resource monitoring and implemented LSTM and ARIMA models to predict next-day needs, refined daily using staff updates (Demo Video).
- Selected among the **top 30** teams to pitch offline at the **AI4Humanity Summit** (with the Israel Embassy) in a hackathon of 150+ teams.

Missing Person Detection in Large Crowds | *Cloud Vision API, OpenCV, Hugging Face, facelib* **Oct 2024**

- Led a team to design an AI-powered system for detecting missing persons in crowds using Google Cloud Vision API.
- Implemented facial recognition with embeddings and cosine similarity for efficient matching.
- Selected among the **top 45 teams out of 200+** to represent NSUT in the Smart India Hackathon 2024 (Demo Video).

Technical Skills

Languages: Python, C/C++, MATLAB, SQL, JavaScript, HTML/CSS
Frameworks and Tools: Tensorflow, OpenCV, PyTorch, Pygame, Scikit-learn, pytesseract (OCR), Tkinter, Streamlit, SHAP (xAI), Git, Azure, GCP, spaCy, nltk, LangChain, Jupyter, statsmodels, Visual Studio Code
Databases and Services: Azure Blob Storage, MySQL, PostgreSQL, Hugging Face, Kaggle
Core Competencies: Computer Vision , ML, Data Analysis, Natural Language Processing, Cloud Computing, Time Series Analysis, Deep Learning, AI

Leadership / Extracurricular

- Secured **World Rank 3** in the **BraTS Lighthouse 2025 – Tumor Progression Challenge**, with our paper accepted for **Oral Presentation** at the **MICCAI 2025 Conference, South Korea**.
- Active ML member at Google Developer Students Club (GDSC) and core member at Hackethix Society.
- Secured All India 14th rank in BRAINDEAD Unstop competition by making two projects: one on EDA and ML, and another on an LLMs hybrid summarizer in Feb 2025.(GitHub Link) (Certificate Link)
- Solved **1000+** problems across various coding platforms such as LeetCode, GeeksforGeeks, and others. Achieved **Pupil** rank on Codeforces.
- Ranked in the top 0.43% of 1.1M students in JEE-2023.
- Top 30 out of 150+ teams at **AI4Humanity Summit** for an AI-based healthcare system (Certificate).
- Ranked in the top 1% of students in IIT KGP's Soft Skills Development course.
- Completed various data science certifications from DeepLearning.AI and NVIDIA.