Jiya Sinha

Email: jiya22@iiserb.ac.in
LinkedIn: linkedin.com/in/jiyasinha
GitHub: github.com/sinhajiya

Education

Indian Institute of Science Education and Research,Bhopal December 2022-August 2026
BS Data Science and Engineering *CPI (6^{th} Sem): 8.65/10*

Laxman Public School, New Delhi 2020-2022
Class XII (CBSE): 94%

Mount Carmel School, Chandigarh 2016-2020
Class X (CBSE): 96.33%

Relevant Courses

Deep Learning, Machine Learning, Natural Language Processing, Computer Vision, Artificial Intelligence, Machine Learning with graphs, Data Structures and Algorithms, Databases, Probability and Statistics, Linear Algebra, Calculus, Signals and Systems

Publications

Sinha, J., Bhattacharya, P., & Agarwal, A. (2025). Gesture recognition for emergencies: Dataset and cross-condition analysis. *2025 IEEE 19th International Conference on Automatic Face and Gesture Recognition (FG)*, 1–6. https://doi.org/10.1109/FG61629.2025.11099316

Internships

- **Computer Vision Intern** *September 2024 – January 2025*
  Trustworthy BiometraVision Lab, IISER Bhopal *Certificate*
  - Created a 1,000+ video gesture recognition dataset across diverse environments/devices, enabling robust detection of five dynamic emergency gestures by Indian participants.
  - Implemented and benchmarked SOTA deep learning models (ViViT, VGG-LSTM, MobileNetV2-LSTM), analyzing performance under varying lighting and device quality.
  - Co-authored a peer-reviewed paper at FG2025.

- **Summer Intern** *March 2025 – August 2025*
  Advanced Signal and Image Processing Lab, IISER Bhopal
  - Designing deep learning models to colorize near-infrared (NIR) images into RGB outputs.
  - Exploring GAN-based approaches using diverse generator architectures and custom loss functions.
  - Focused on balancing perceptual quality and computational efficiency for real-world deployment.

Personal Projects

- **BeautyGAN-based Makeup Style Transfer** *Python, PyTorch, CV*
  GitHub
  - Developed a GAN-based model for makeup style transfer between facial images
  - Implemented BeautyGAN (ACC MM 2018) architecture using PyTorch
- **Face Recognition** *Python, Scikit-learn, Computer Vision*
  (GitHub)
  - Built a face recognition pipeline using the Yale Face Database by extracting hand-crafted features and training traditional machine learning models.
  - Gained hands-on experience using classical approaches with image preprocessing, feature engineering, and model evaluation.

Skills & Tools

- **Programming:** Python, C
- **Machine Learning & Deep Learning:** Scikit-learn, PyTorch
- **Data Analysis & Visualization:** NumPy, pandas, Matplotlib, OpenCV
- **Databases:** MySQL