

SIDDHI PRAVIN LIPARE

MS by Research · CVIT, IIIT Hyderabad

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EDUCATION

MS by Research, Computer Science & Engineering

International Institute of Information Technology, Hyderabad

Jan 2026 – Present

CGPA 8.00

BS Data Science & Engineering

Indian Institute of Science Education & Research, Bhopal

Dec 2021 – May 2025

CGPA 8.41

Senior Secondary (Class XII), CBSE Board · 90.0%

2021

Secondary (Class X), CBSE Board · 95.0%

2019

EXPERIENCE

Centre for Visual Information & Technology (CVIT), IIIT Hyderabad

Applied Research Fellow

May 2025 – Dec 2025

[Project Page](#)

- Designed **RoadTones** – a dataset–model–evaluation framework for tone-controllable road-video captioning. Work presented at [CVPR Findings](#) and [WiCV@CVPR Workshop](#).
- Developed key components of the dataset generation pipeline and evaluation metrics, enabling comprehensive benchmarking against 10 state-of-the-art Video Large Language Models (Video LLMs).

Indian Institute of Technology Madras

Research Intern

May 2024 – Jul. 2024

[Certificate](#), [Report](#)

- Explored Super-Resolution techniques for 3D medical imaging, enhancing z-axis resolution in CT and MRI scans.
- Utilized GANs, Diffusion Models, and NeRF to improve image clarity for better diagnostics.

PROJECTS

vLLM Inferencing for Road Videos

CVIT, IIIT-Hyderabad

Dec. 2025 – Jan 2026

- Investigated and optimized the **vLLM** inference pipeline for the project demo of **RoadTones**, minimizing video quality degradation during inference to preserve caption generation performance.

SegWave: Wavelet-Driven Segmentation of Tampered Regions

TBVL, IISER Bhopal

Jan. 2025 – April 2025

[BS Thesis](#)

- Leveraged the use of Discrete Wavelet Transform along with an Adaptive Sub-Band Attention Module to capture frequency-spatial cues to enable precise localization of tampered regions in an image. Poster presented at CV4Science@CVPR Workshop 2025, and extended abstract accepted at WiML@ICML Workshop 2026.

Improving Monocular Depth Estimation of Outdoor Images in Dim Light Conditions

IISER Bhopal

Sept. 2024 – Nov. 2024

[Report](#)

- Integrated denoising and deblurring filters into the transformer-based DepthAnything V2 model to improve depth estimation in blurry and noisy nighttime images.

Prediction of Mortality Rate of Heart Failure Patients Admitted to ICU

IISER Bhopal

Sept. 2023 – Nov. 2023

[GitHub](#)

- A binary classification problem executed using supervised machine-learning techniques. Several classifiers and pre-processing methods were applied to determine which classifier gave the best results.

SKILLS & HOBBIES

Languages

Python, C/C++

Technologies

PyTorch, TensorFlow, Keras, OpenCV, Huggingface

Hobbies

Dance (Bharatnatyam), Performing Arts (Acting), Table Tennis

ACHIEVEMENTS

CVPR BP Travel Grant & WiCV@CVPR Travel Grant — Selected to receive travel grants for attending CVPR 2026.

2026

GATE DA Examination — Secured All India Rank 1455.

2025

ISRO Robotics Challenge — Among the Top 30 teams out of 400 in India.

2024

IEEE CAS Student Design Competition — 3rd place in the Asia-Pacific Region, Patent filed on 18/10/2023.

2022

IISER Aptitude Test — Secured All India Rank 1514.

2021

Mathex Exam (Ganit Pradnya) — Among the Top 100 in Maharashtra State.

2017