Saumya Roy

caffineaddic.github.io

Stockholm, Sweden

Email: saumyaroy271@gmail.com
Mobile: +46 76 457 40 41
LinkedIn: linkedin.com/in/saumyaoy
GitHub: github.com/CaffineAddic

EDUCATION

KTH Royal Institute of Technology, Stockholm **2025 - 2027**
Masters of Science in Data-Driven Health

- Related Coursework: Databases and Data Models, Statistics for Medical Engineering.

Indian Institute of Space Science and Technology (IIST), Kerala **2020 - 2024**
Bachelor of Technology in Electronics and Communication Engineering

- Cumulative GPA: 7.28/10.
- Related Coursework: Machine Learning for Signal Processing, Computer Vision, Digital Image Processing, Deep Learning for Computational Data Science.

EXPERIENCE

Research Boot-camp **November 2025**
Université Grenoble Alpes *Grenoble, France*

- Explored the application of A.I. in Construction Engineering to enhance productivity and efficiency.

Research Intern **June 2024 - December 2024**
Indian Institute of Technology *Delhi, India*

- Created a deep learning system for detecting wheat damage with 99.82% accuracy, aiding farmers in crop management.
- Built an real time AI device for accident prevention in construction with 98.3% accuracy.

Summer Intern **May 2023 - August 2023**
National Remote Sensing Center *Hyderabad, India*

- Enhanced image segmentation accuracy by developing advanced neural network techniques for analyzing radar data with minimal data loss using raw data processing.

CERTIFICATION & AWARDS

Top 2% in the Joint Entrance Examination (JEE) Main and Advanced. 2020

Scholarship from Department of Space, Govt. of India for undergraduate studies. 2020

SKILLS & INTERESTS

Technical Python, R, C++, MATLAB, TensorFlow, PyTorch, Keras, OpenCV.

Hobbies Chess, Football, Boxing, Hiking and Reading.

PROJECTS

HybridMorph | *github* | paper 2025

- Python, TensorFlow, Keras, Neurite
- Developed an automated system for aligning medical images from hybrid data sources.
- 9.2% improvement in accuracy when using limited data.

Combined FFT and Wavelet Analysis of Schlieren and Flame Luminosity Time-Series to Visualize Regions of Combustion Instability | *github* | paper 2024

- Python, Pywt, OpenCV, Scipy
- Developed advanced digital imaging methods using high-speed optical diagnostics to analyze combustion instability in flames, achieving insights into both spatial distribution and temporal evolution of instabilities.