



# Rejoy Chakraborty

Ph.D. Scholar

Computer Vision and Pattern Recognition Unit

Indian Statistical Institute, Kolkata

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## EDUCATION

Degree	Institute	Subject	CGPA/Percentage	Year
M.Tech.	Indian Institute of Technology Ropar (IIT Ropar)	CSE	9.6	2023-2025
M.Sc.	West Bengal State University	CS	9.7	2021-2023
B.Sc. (Hons.)	Ramakrishna Mission Vivekananda Centenary College	CS	9.33	2018-2021
Higher Secondary	Bidhannagar Municipal School	Science	73.8%	2018

## AREA OF INTEREST

- **Primary Interest:** Computer Vision, Image Processing
- **Secondary Interest:** Machine Learning, Deep Learning

## EXPERIENCE

- **Indian Statistical Institute** *July 2025 - Present*  
*Junior Research Fellow (JRF)*  
Kolkata, West Bengal  
– Joined as ISI Research Scholar at CVPR Unit
- **Indian Statistical Institute** *August 2025 - December 2025*  
*Teaching Assistant (TA)*  
Kolkata, West Bengal  
– Introduction to Programming
- **Indian Institute of Technology Ropar** *July 2024 - May 2025*  
*Teaching Assistant (Head TA)*  
Rupnagar, Punjab  
– Data Structures and Algorithms (CS506 & CS205)  
– Digital Image Processing (CS517)
- **University of Calcutta** *May 2019 - June 2019*  
*Summer Intern*  
Salt Lake, Kolkata  
– Under the supervision of Prof. Samir Kumar Bandyopadhyay  
– Audio Steganography and implemented few techniques using Python

## PUBLICATIONS

- **DRG-Font: Dynamic Reference-Guided Few-shot Font Generation via Contrastive Style-Content Disentanglement** *2026*  
*Under Review*  
\* Authors: Rejoy Chakraborty, Prasun Roy, Saumik Bhattacharya, Umapada Pal  
\* DOI: <https://doi.org/10.48550/arXiv.2604.13797>
- **Source Camera Model Identification via Federated Learning using Laplacian-based Patches** *2025*  
*IEEE Transactions on Artificial Intelligence (IEEE TAI)*  
\* Authors: Rejoy Chakraborty, Puneet Goyal  
\* DOI: <https://doi.org/10.1109/TAI.2025.3629009>
- **Camera Model Identification with SPAIR-Swin and Entropy based Non-Homogeneous Patches** *2025*  
*Under Review*  
\* Authors: Protay Dey, Rejoy Chakraborty, Abhilasha S. Jadhav, Kapil Rana, Gaurav Sharma, Puneet Goyal  
\* DOI: <https://doi.org/10.48550/arXiv.2503.22120>
- **MSPlantNet: Plant Disease Classification using Few Shot Learning** *2024*  
*9th International Conference on Computer Vision and Image Processing (CVIP 2024)*  
\* Authors: Rejoy Chakraborty, Md. Sajid Anis, Pallav Kumar, Manish Jha, Neeraj Goel, Mukesh Saini  
\* URL: [https://link.springer.com/chapter/10.1007/978-3-031-93697-5\\_24](https://link.springer.com/chapter/10.1007/978-3-031-93697-5_24)
- **MSBNet: Handwritten Bangla Character Recognition Using Lightweight Multi-scale CNN Architecture** *2024*  
*8th ACM India Joint International Conference on Data Science and Management of Data (CODS-COMAD Dec'2024)*  
\* Authors: Rejoy Chakraborty, Chayan Halder, Kaushik Roy, Shivam Gupta, Shashi Shekhar Jha  
\* DOI: <https://doi.org/10.1145/3703323.3703340>

## PROJECTS

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- **Source Camera Model Identification using Federated Learning** *June 2024 - May 2025*  
*Supervisor: Dr. Puneet Goyal*
  - \* M.Tech. Thesis Project
  - \* Source camera model identification from novel curated document images and incorporating Federated Learning for addressing privacy concern.
- **Hand Gesture Recognition using Few Shot Learning** *April 2024 - May 2024*  
*Instructor : Dr. Santosh K. Vipparthi*
  - \* Hand gesture recognition on HaGRID dataset using Few-shot learning with multi-scale architecture
- **Semi-automated Ground Truth Generation of Bangla Handwritten Offline Text Documents** *Aug 2022 - July 2023*  
*Supervisor: Prof. Kaushik Roy*
  - \* M.Sc. Thesis Project
  - \* Designed a semi automated system for line, word and character segmentation and ground truth generation from Bangla handwritten offline text documents
- **Generating Convex Hull From 3D Point Cloud Data Denoised Using Bilateral Filtering** *Jan 2018 - July 2018*  
*Supervisor: Dr. Biswajit Biswas*
  - \* B.Sc. Thesis Project
  - \* Applied Bilateral Filtering scheme for outlier removal on Point Cloud data and generated Convex Hull on it.

## TECHNICAL SKILLS

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- Programming Languages:** C, C++, Python, LaTeX, Java
- Frameworks/Packages:** PyTorch, Tensorflow, OpenCV
- Operating Systems:** Windows, Linux

## SUBJECT SKILLS

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- Core:**Data Structure and Algorithms, Linear Algebra, Machine Learning
- Others:** Artificial Intelligence, Game Theory

## REVIEW EXPERIENCE

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- **Reviewer**, ACM TALLIP, CVIP, SNCS, IEEE TETCI *2023-Present*
- **External Reviewer**, ICPR *2026*

## ACHIEVEMENTS

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- **Institute Silver Medalist**, Topper in M.Tech. in CSE, Indian Institute of Technology Ropar *2025*
- **Recieved Reliance Foundation Postgraduate Scholarship**, during the tenure of M.Tech. course *2023-2025*
- **Qualified GATE 2023 in CSIT**, with All India Rank 983 and Score 626 *2023*
- **Received Swami Vivekananda Merit-cum-Means Scholarship**, Govt. of West Bengal funded *2021-2023*
- **Gold Medalist**, Topper in B.Sc. CS (Hons), Ramakrishna Mission Vivekananda Centenary College *2021*

## VOLUNTEER EXPERIENCE

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- **27<sup>th</sup> International Conference on Pattern Recognition (ICPR 2024)** *December 2024*  
*Student Volunteer*
  - \* Organized at Biswa Bangla Convention Centre, Kolkata, India
- **2<sup>nd</sup> International Conference on Agriculture-Centric Computation (ICA 2024)** *May 2024*  
*Student Volunteer*
  - \* Organized at Indraprastha Institute of Information Technology Delhi, Delhi, India

## OTHER INFORMATIONS

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- Date of Birth:** 29/12/1999
- Marital Status:** Unmarried
- Soft Skills:** Hard worker, Management, Leadership
- Hobbies:** Teaching, Singing