


RONAK SARKAR

M.Sc in Big Data Analytics
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PROJECTS

- **Congruence Theory and Its Applications**
 - Explored applications of Congruence Theory in Number Theory and Cryptography.
- **Fashion MNIST Classification**
 - Developed a machine learning model to classify images from the Fashion MNIST dataset.
 - Focused on achieving high accuracy using advanced classification techniques.
- **ChessLens: Chess Board Visualization**
 - Built a Python-Tkinter GUI to display chess positions from FEN strings.
 - Used OpenCV for chessboard detection and edge analysis.
- **Visual Question Answering (VQA) Model**
 - Built a VQA model combining CNNs and NLP using the VizWiz dataset.
 - Applied R-CNNs and attention mechanisms to enhance accuracy.

COURSEWORK

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|----------------------------------|--|
| • Data Structures and Algorithms | • Time Series & Survival Analysis |
| • Java & Hadoop | • Graph Database & Distributed Computing |
| • Machine Learning | • Advanced Statistics |
| • Computer Vision | • Probability and Stochastic Process |
| • Deep Learning and NLP | • Statistics-I |
| • Joy of Computing Using Python | • Universal Human Values |
| • Linear Algebra | |

EXPERIENCE





IASc-INSA-NASI Summer Research Fellow

Indian Institute of Technology Bombay

 May 2025 – July 2025  Mumbai, India

- Selected under national SRFP programme to work under Prof. K.S. Mallikarjuna Rao.
- Working on research problems related to Financial Probability.

EDUCATION

- **Ramakrishna Mission Vivekananda Educational and Research Institute, Howrah**
M.Sc in Big Data Analytics
 2024 – 2026 (Expected)
- **Chandernagore College, University of Burdwan**
B.Sc in Mathematics
 2021 – 2024
- **Pandua Sasibhusan Saha High School**
Higher Secondary (PCM Computer Science)
 2013 – 2021
- **Nivedita Sishu Siksha Kendra**
Elementary School
 2009 – 2012

SKILLS

- **Programming:** Python, R
- **Concepts:** Machine Learning, Data Analysis, Data Structures
- **Mathematics:** Abstract Algebra, Linear Algebra, Probability Statistics
- **Tools:** Computer Vision, ELAN Annotation Tool

CERTIFICATIONS

- IT/ITES Vocational Course: Level 1 and Level 2

LANGUAGES

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|-----------|-----------|
| • English | ● ● ● ● ● |
| • Bengali | ● ● ● ● ● |

INTERESTS

- Chess (FIDE rating: 1446), Machine Learning, Computer Vision, ASR