

Depto Debnath

3rd Year, Department of Mathematics and Statistics

IISER Kolkata, Haringhata Farm, Mohanpur, Nadia - 741 246

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Interests

I am passionate about Mathematics, both pure and applied. For now, I find analysis most interesting. However, I am aware that I still have a lot to explore, so I am looking out for opportunities to learn more wherever I can.

I also have a strong background in programming, mainly in Python and Java, and like to apply mathematics to real life scenarios via computation.

Education

Indian Institute of Science Education and Research (IISER) Kolkata, Nadia - 741 246

- **5 Year Integrated BS-MS Dual Degree** Aug 2024 - Present
 - Currently enrolled, completed 4th semester, 5th semester ongoing
 - Cumulative GPA: 9.37 / 10.0

Barasat Indira Gandhi Memorial High School (BIGMHS), Barasat, Kolkata - 700 124

- **All India Senior School Certificate Examination (AISSCE), CBSE** 2024
 - Total Percentage: 97.33%, ranked 1st in school
 - **All India Secondary School Examination (AISSE), CBSE** 2022
 - Total Percentage: 98.17%, ranked 2nd in school
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Projects

Curl - A Simple Electric Field Visualiser ([link](#)) 2025

In collaboration with Subhradip Mondal

- Python program that can take any given array of charges and show their electric field in the form of field arrows
- Technologies used: Python, Pygame; game pixel art hand-drawn using Pixilart

Attended Workshop on Detecting Dark Matter ([final data](#)) 2025

- Generated 21cm H1 rotation curve of Milky Way, where the unexpected curve generated is one of the key proofs of existence of dark matter
- Technologies used: Python, Jupyter Notebook, SciDAVis

TicTacToe With Computer Opponent Using MiniMax Algorithm ([link](#)) 2024

- Uses an implementation of minimax with adjustable tree depth for three levels of difficulty
- Technologies used: Python, Pygame

Bookstore Management System ([link](#))

2023

In collaboration with Archisman Sarkar

- Made a simple bookstore management system as part of high school final computer science project
- Technologies used: Python, MySQL

APOD Viewer ([link](#))

2020-2022

- Built an Android app to view pictures from NASA's Astronomy Photo of The Day (APOD) service
 - Technologies used: Android programming using Java, the Room persistence library
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Event Management

Event Organiser for Botprix at Inquivesta XII

2026

- Organised Botprix, a robot racing event, at IISER Kolkata's annual fest for the first time in 7 years
 - Successfully brought participation from Jadavpur University, IIT Kalyani, IIST Shibpur
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Awards and Scholarships

C.N.R. Rao Education Foundation Prize

2025

- For securing the highest marks in the first semester of the 5 Year BS-MS Dual Degree Programme

DST INSPIRE Scholarship for Higher Education (SHE)

2024

- For being within top 1% of Class XII examination (AISSCE) of Central Board of Secondary Education (CBSE) across India and pursuing Integrated M.S. courses in Natural and Basic Sciences at an IISER
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Skills

Programming and Markup

- **Languages:** Python, Typst, Markdown (intermediate); Java, Kotlin, HTML, CSS, Javascript, SQL, LaTeX (basic)
- **Tools:** Numpy, Matplotlib, Pandas, SciPy and PyGame, LaTeX, Typst LibGDX, Android programming

Other Software

- Microsoft Office suite (Word, Excel, Powerpoint), LibreOffice suite (Writer, Calc, Impress)
- GIMP (image editor), LibreSprite, Pixilart (pixel art software)
- Basic knowledge of Origin graphing software

Languages

- Fluent in English, Hindi and Bengali; basic knowledge of German and Dutch
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Other Interests

- Regular player for batch **football** team at IISER Kolkata; also play **cricket** and **chess** infrequently
 - Avid folder of **origami** since childhood
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