Daibik Barik

🔗 The DodoSite   **in** daibik-barik   ⌨ theikosB   ♫ MoodB

Personal Info (Contact)

📍 **Location:** Durgapur, West Bengal, India

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A Bit About Myself

Passionate mathematics student with a strong interest in analysis, graph theory, and problem-solving. Dedicated to continuous learning and research, with a knack for unraveling complex mathematical concepts and their foundational principles. Enthusiastic about leveraging logical thinking and programming skills to tackle challenging problems and explore innovative solutions.

Research Internships

Research Commons, Mathematics Research Intern   (Remote Working)
Jan 2025 - (Ongoing)

- Preparing a Curriculum for the Research based studies in India in various levels on different topics of Mathematics.
- Worked with various other undergrads from IITs and BITs

Learning ODE, PDE

Education

B.Math. (Bachelor's)	**Indian Statistical Institute, Bangalore** Mathematics & Statistics with Computer Science, Physics	Bangalore, India Aug 2023 – May 2026

- **Grade:** 84.7% in first year
- **Coursework:** Number Theory, Probability, Statistics, Linear Algebra, Group Theory, Rings and Modules, Real Analysis, Multivariable Analysis, Topology, ODE

AISSCE (High School)	**DAV Model School, Durgapur** Including Mathematics, in **English**	Durgapur, India Apr 2021 – Mar 2023

- **Grade:** 96% in Central Board of Secondary Education
- **Subjects:** Mathematics, Physics, CS, Phy. Ed., English

Achievements

Academic Achievements

Qualified for **JEE Advanced** — 96 percentile in JEE mains	2023
KVPY (now INSPIRE) Scholarship Fellow — *Department of Science and Technology, Govt. of India*	2021
Passed **Indian Olympiad Qualifier for Mathematics or equivalent** — *Mathematics Teachers' Association of India*	2020, 2019, 2018
Qualified for **Atmadeep** — *Times of India*	2018

Certifications

Causal Diagrams, CS50P — Harvard Online	2025, 2024
Mathematical Thinking — Stanford Online	2024
Python (Basic), Problem Solving (Intermediate) ↗ — HackerRank	2024

Research Publications

Journal Articles

Asymmetric vertex colorings of disjoint unions of graphs (In Process)

The Polymath Jr. 2024 Asymmetric Graph Coloring team, including ***Daibik Barik***

arXiv:2412.00574 ↗

Research Experience

Study Project — West Bengal
National Institute of Technology, Durgapur — Winter 2024

- On *Modelling on Fuzzy Graphs*, worked with Dr. Kartick Mohanta under the mentorship of Prof. Anita Pal.
- Worked on a paper *Dual Warehouse Inventory Model* with *trade credit*

  Learnt Fuzzy Graph Theory, ODE, inventory Control Management

PolyMath Junior — (Online)
Williams College, US — Summer 2024

- On *Asymmetric Colourings of Graphs*, working with students worldwide under the mentorship of Prof. Puck Rombach, Daniel Johnston and Jeremy Quail.
- Gave a group presentation and **Publishing a paper regarding the same.**

  Learnt Graph Theory, Group Theory, SageMath

UDGRP Winter — (Online)
Indian Statistical Institute, Bangalore — Winter 2024, 2023

- Taken by the 2nd Years (Sophomores) of the institute
- Various books are read and projects are presented on topics which are out of the core syllabus and serve as bridge learning.

  Taught Knot Theory (2024)

  Learnt Geometric Group Theory, Enumerative Combinatorics, Fourier Analysis, Measure Theory (2024)
  Combinatorial Game Theory, Commutative Algebra, LaTeX (2023)

Miscellaneous Skills

Languages: Python, C, R

Platforms: LaTeX, SQL, HTML, Octave

Hobbies: Photography, Chess, Reading books, Listening to Music, Painting, Some outdoor sports