Dhrubajyoti Ghosh

Curriculum Vitae

Personal

Year of Birth:	2002
Country of Origin:	India
Home Page:	https://ghoshdhruba.github.io/
Language:	English (fluent), French (basic), Bengali (mother tongue)

Education

2024-2025	**ENS Paris-Saclay**, M2 Master Parisien de Recherche en Informatique Score: 16.74/20, Rank: 17 out of 87
2023-2024	**ENS Paris-Saclay**, M1 Master Parisien de Recherche en Informatique Score: 16.86/20, Rank: 4 out of 27
2020-2023	**Chennai Mathematical Institute, India** B.Sc. Mathematics and Computer Science, CGPA: 9.26/10

Internships, Projects

Apr - Aug 2025	**M2 Internship at ENS Paris-Saclay** Continuation of the work done on the problem of my M1 internship.
Feb - June 2024	**M1 Internship at ENS Paris-Saclay** Worked under Thomas Nowak on finding a synchronous message passing model equivalent to the asynchronous message passing model with process faults. Collaborated with researchers from Technion, Israel and UNAM, Mexico.
Sep - Dec 2023	**Reading project in distributed computing, ENS Paris-Saclay** Read and presented two recent results (here, here) using topological methods to characterize task solvability in various distributed computing models
May - July 2023	**Internship at Max Planck Institute for Informatics, Saarbrücken** Worked under Christoph Lenzen on efficient synchronous counting. The aim was to improve the communication complexity of an existing algorithm.
May - July 2022	**Summer Internship at IIT Kharagpur, India** Studied Nakamoto consensus [slides] and parts of the Paxos protocol under Prof. Sudebkumar Pal.

Research Interests

Broadly interested in distributed computing, currently focusing on comparing the computational power of models of distributed computing.

Selected Coursework

Mathematics:

(At CMI):
Topology
Differential Equations
Probability Theory
Real Analysis
Complex Analysis
Ring and Field Theory
Group Theory
Linear Algebra

Computer Science:

(In MPRI M1 & M2):
Distributed algorithms on networks
Advanced graph theory
Theory of practical graph algorithms
Quantum information and applications
Approximation Algorithms
Analytic Combinatorics
Efficient Algorithms in Computer Algebra
Probabilistic Aspects of Computer Science
Lambda-calculus and categories

(At CISPA, Saarbrücken, unofficial):
Clock Synchronization and Adversarial Fault Tolerance

(At CMI):
Concurrent Programming
Programming Language Concepts
Infinite State Verification
Theory of Computation
Design and Analysis of Algorithms
Computational Complexity
Discrete Mathematics

Achievements, Awards

2023-2025 **Université Paris-Saclay IDEX Scholarship**
Grant for attending the MPRI program at ENS Paris-Saclay

2019, 2020 **Indian National Mathematical Olympiad**
Among top 31 students nationwide chosen for IMO Training Camp in 2019, 2020

Software Knowledge

Programming Languages: C++ (fluent), Python (fluent), Haskell (basic)
Misc. : LaTeX, Unix, Vim, Z3, PyTorch