

Dhrubajyoti Ghosh

Curriculum Vitae

PERSONAL

YEAR OF BIRTH: 2002
COUNTRY OF ORIGIN: India
EMAIL: dghosh@ens-paris-saclay.fr
HOME PAGE: <https://ghoshdhruba.github.io/>
LANGUAGE: English (fluent), Bengali (mother tongue), French (basic)

EDUCATION

2018-2020 **Kendriya Vidyalaya IIT Kharagpur, West Bengal, India**
Senior School Certificate Examination (Stream: Science), percentage: 95.6%
DEC 2020-JUL 2023 **Chennai Mathematical Institute, India**
B.Sc. Mathematics and Computer Science, CGPA: 9.26/10
SEP 2023-SEP 2024 **ENS Paris-Saclay**
M1 Master Parisien de Recherche en Informatique
Marks: 16.86/20, Rank: 4 out of 27, Mention: Très Bien / summa cum laude
OCT 2024-TILL DATE **ENS Paris-Saclay**
M2 Master Parisien de Recherche en Informatique

RESEARCH INTERESTS

Broadly interested in distributed computing, and in particular, fault tolerance, applications of topological methods, and clock synchronization.

INTERNSHIPS, PROJECTS

APR - AUG 2025 **M2 Internship at ENS Paris-Saclay**
Continuation of the work done on the problem of my M1 internship. This work will form a basis for my upcoming PhD thesis with Prof. [Thomas Nowak](#).

FEB - JUNE 2024 **M1 Internship at ENS Paris-Saclay**
Worked under Prof. 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 Dr. [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](#).

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
Randomness in Complexity
Analytic Combinatorics (course: Analysis of Algorithms)
Efficient Algorithms in Computer Algebra
Probabilistic Aspects of Computer Science
Lambda-calculus and categories
(At CISP, 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

2019 **Indian National Mathematical Olympiad**

Among **top 31 students** nationwide chosen for **IMO** Training Camp in **2019, 2020**

2023-2025 **Université Paris-Saclay IDEX Scholarship**

Monthly grant of 1000€ for attending the MPRI program at ENS Paris-Saclay

SOFTWARE KNOWLEDGE

PROGRAMMING LANGUAGES: C++ (fluent), Python (fluent), Haskell (basic)

MISC. : Unix, Vim, Z3, PyTorch, ~~La~~TeX

UNIX EXPERIENCE: Basic experience with GNU utilities (grep, find, sed, etc.). Able to write basic shell scripts, e.g., filtering specific emails, notifying after completion of long processes, etc.

HOBBIES

I like listening to Indian and Western classical music. I play an Indian instrument called the **sitar**. I am also a passionate cyclist.