

Soham Chatterjee

✉ sohamc@cmi.ac.in / sohamchatterjee999@gmail.com • [sohamch08.github.io](https://github.com/sohamch08)

Education

- **Chennai Mathematical Institute** **Chennai, Tamilnadu, India**
B. Sc - Mathematics and Computer Science *2021 – Ongoing*
- **University of Calcutta** **Kolkata, West Bengal, India**
B. Tech 1st Year - Electronics and Communication Engineering *2020 – 2021*
- **Baranagar Narendranath Vidyamandir** **Kolkata, West Bengal, India**
Higher Secondary (12th Standard) *2018 – 2020*
- **Baranagar Ramakrishna Mission Ashrama High School** **Kolkata, West Bengal, India**
Secondary (10th Standard) *2008 – 2018*

Academic Achievements

- **CMI Entrance** **Chennai Mathematical Institute**
Entrance exam of Chennai Mathematical Institute *2021*
- **NEST** **NISER**
Entrance exam of National Institute of Science Education and Research (NISER) *2021*
- **WBJEE - Rank 1893** **WBJEEB**
West Bengal Joint Entrance Exam *2020*
- **12th Statistics Olympiad - Rank 108** **AIMSCS**
C R Rao Advanced Institute of Mathematics, Statistics and Computer Science (AIMSCS) *2020*

Projects

- **Ramanujan's work on theta functions and q -series and their connections with number theory.**
Under Professor [Rupam Barman](#), IIT Guahati during the summer break in May – Jul, 2022.
- **Computational Number Theory and Algebra for Algebraic Complexity Theory**
Under Professor [Nitin Saxena](#), IIT Kanpur during the winter break in Dec – Jan, 2022.
- **Factorization of Formula Arithmetic Circuits in Algebraic Complexity Theory**
Under Professor [Nitin Saxena](#), IIT Kanpur during the summer break in May – July, 2023.
- **Quantum Boolean Functions and Quantum Property Testing and Junta Functions.**
Under Professor [Arijit Ghosh](#), ISI Kolkata during the winter break in Dec – Jan, 2023.

Topics I Learned

- **Math Topics:-**
 - **Analysis:**
 - Real Analysis
 - Euclidean Space
 - Metric Space
 - **Algebra:**
 - Linear Algebra
 - Ring Theory
 - Galois Theory
 - Group Theory
 - Field Theory
 - Complex Analysis
 - Commutative Algebra
 - Algebraic Curves
 - Probability Theory
 - General Topology
 - Algebraic Topology (Introductory)
 - Integral Calculus
 - Differential Equations

- **Computer Science Topics:-**

- **Theoretical Computer Science Topics:**

- Design and Analysis of Algorithms - [Geevarghese Philip](#) and [Samir Dutta](#)
 - Theory of Computation - [Narayan Kumar](#) and [C. Aiswarya](#)
 - Complexity Theory - [Partha Mukhopadhyay](#)
 - Pseudorandomness - [Partha Mukhopadhyay](#)
 - Parallel Algorithms and Complexity - [Samir Dutta](#)
 - Algorithmic Coding Theory - [Amit Kumar Sinhababu](#)
 - Quantum Algorithmic Thinking - [Partha Mukhopadhyay](#)
 - Discrete Mathematics - [C Ramya](#) & [Partha Mukhopadhyay](#)
 - Arithmetic Circuits - [Nitin Saxena](#)
 - Computational Algebra and Number Theory - [Nitin Saxena](#)

- **Other CS Topics:**

- Introduction to Functional Programming (Haskell)
 - Advanced Programming with Python - [Samir Dutta](#)
 - Programming Language Concepts (Java, Concurrent Programming, Lambda Calculus)

- **Other Topics:-**

- Classical Mechanics
 - English

Computer Skills

- **Programming Languages:** C (Basic), Python (Intermediate), Haskell (Basic), Java (Intermediate), Unix/Linux Shell Scripting, HTML, CSS
- **Technical Skills:** \LaTeX (Advanced), Markdown, Git, Basic works in terminal, VIM, Obsidian

Hobbies

- Tinkering \LaTeX , Watch Anime, Listen Music (J-pop, Western), Theming linux desktop