



Aryaman Maithani
Mathematics
Indian Institute of Technology Bombay

18B090001
UG Third Year (B.S.)
Male
DOB: 29-09-2000

| Examination | University | Institute | Year | CPI / % |
|-----------------|---|---------------------------|------|---------|
| Graduation | IIT Bombay | IIT Bombay | 2020 | 9.72 |
| Intermediate/+2 | Central Board of Secondary Education | Nehru Smaraka Vidyalaya | 2018 | 94.00 |
| Matriculation | Council for the Indian School Certificate Examination | Ryan International School | 2016 | 94.67 |

ACADEMIC ACHIEVEMENTS

- Ranked *1st* in Mathematics Department on the basis of academic performance. *(May 2020)*
- Awarded the **AP** grade in the following courses:
 - MA 403 (Real Analysis), awarded to 2 out of 70 students. *(Autumn 2019)*
 - MA 419 (Basic Algebra), awarded to 1 out of 70 students. *(Autumn 2019)*
 - CS 288 (Logic), awarded to 2 out of 132 students. *(Autumn 2019)*
 - CS 101 (Computer Programming), awarded to 5 out of 663 students. *(Autumn 2018)*
- Achieved All-India Rank **595** out of 1,000,000 participants in **JEE (Main) 2018**, an entrance exam for undergraduate level. *(April 2018)*
- Achieved All-India Rank **742** out of 165,000 participants in **JEE (Advanced) 2018**, an entrance exam for admission to IITs. *(May 2018)*
- Secured a seat in **Chennai Mathematical Institute (CMI)** on the basis of my performance in its entrance exam. *(May 2018)*
- A recipient of the KVPY fellowship offered by the Indian Institute of Science (IISc). *(June 2018)*
- Secured an All-India Rank of **147** out of 50,000 in **Kishore Vaigyanik Protsahan Yojana (KVPY) 2017**, in SX stream. *(November 2017)*

READING PROJECTS

Primes is in P *(February 2020)*

Guide: Professor Ronnie Sebastian

Read the paper “Primes is in P” about the AKS Algorithm by Agrawal-Kayal-Saxena and wrote a report on that.

Posets *(September 2019)*

Guide: Professor Koushik Saha

Read about posets from Enumerative Combinatorics by Richard P. Stanley and gave a presentation on it as part of extra reading in Combinatorics.

Topology - Classification of Surfaces *(April - July 2019)*

Guide: Summer of Science mentor under Maths and Physics Club, IIT Bombay

Made a report based which was selected to be awarded by a Certificate of Merit by the Club. The report contains an introduction to topology and a proof of the Classification of Surfaces.

TEACHING

- Entrusted with the responsibility of being a Teaching Assistant for the courses MA 105 - Calculus, MA 106 - Linear Algebra, and MA 108 - Ordinary Differential Equations. *(Autumn - Spring 2019)*
- Conducted seven TSCs (Tutorial Service Centre) for teaching concepts of MA 105, CS 101, MA 106, and helping in solving doubts, organised by the Student Support Services, IIT Bombay. *(September 2019 - February 2020)*

- Was a speaker for an introductory workshop on Python conducted by the PG Academic Council aimed at the students of the Mathematics Department, IIT Bombay. *(August 2019)*
- Conducted a help session on *proof-writing* for fellow classmates upon request by instructor. *(October 2018)*
- Was a speaker for two help sessions for CS 101 conducted by the PG Academic Council. *(October - November 2018)*
- Completed 80 hours of community service by teaching in NGOs as a volunteer of National Service Scheme, IIT Bombay. *(August 2018- April 2019)*
- Mentored a team of students at the Code Camp organised by CodePrompt, Internet Academy in association with the Web and Coding Club, IIT Bombay. *(August 2018)*

POSITIONS OF RESPONSIBILITY

- **Teaching Assistant**

Course: MA 105 - Calculus *(August 2019 - December 2019)*

Instructor: Professor Sudhir Ghorpade, Mathematics Department, IIT Bombay

Course: MA 106 - Linear Algebra *(January 2020 - February 2020)*

Instructor: Professor Jugal K. Verma, Mathematics Department, IIT Bombay

- Responsible for conducting tutorial sessions for a batch of 50 students throughout the course and helping them clear conceptual doubts through personal interaction.
- Assisted in correction of answer sheets.
- Created a webpage containing compilation of personal solutions, extra questions, and relevant resources which was used by 1100+ freshmen.

- **Convener** *(April 2019 - March 2020)*

Maths and Physics Club, Institute Technical Council, IIT Bombay

- Conducted activities in a team of 7 to foster enthusiasm in mathematics and physics, tending to a community of 400 - 500 in campus with an online presence of over 8000.
- Worked in conducting of Summer Of Science 2019, a novel initiative through which over 400 students got an opportunity to pursue a reading project in a topic of their interest, under the guidance of over 120 student senior mentors.
- Conducted the quizzing event Bazinga! Maths which involved hosting as well as creating the question paper for the same.

KEY COURSES TAKEN

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|------------------|--|
| MATHEMATICS | Calculus, Linear Algebra, Ordinary Differential Equations, Real Analysis, Complex Analysis, Basic Algebra, Galois Theory, Combinatorics, Basic Number Theory, Multivariable calculus |
| COMPUTER SCIENCE | Computer Programming and Utilisation, Logic for CS |

TECHNICAL SKILLS

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|------------------------------|--|
| LANGUAGES | L ^A T _E X, Java, C++, Python, HTML, CSS, Markdown, Jekyll, Scratch |
| T _E Xnical skills | tikz, tikz-cd, beamer presentations |