

## Academic Achievements

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- Secured All India Rank 304 in IIT JEE Mains 2018 among over 1.3 million candidates 2018
- Secured All India Rank 665 in IIT JEE Advanced 2018 out of more than 150 thousand candidate 2018
- Recipient of the Kishore Vaigyanik Protsahan Yojana (**KVPY**) Fellowship, twice 2017, 2018
- Awarded the prestigious National Talent Search Examination (**NTSE**) scholarship by NCERT 2015

## Projects

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- **Proofreading Rewriter** Ongoing  
Instructor : Amitabha Sanyal Course Project
  - Developing an **online NLP tool** which corrects grammar mistakes and rewrites sentences
  - Exploring the breadth of **parse trees** using **NLTK** (Natural Language Tool Kit) and online APIs
- **Summer of Science** Summer 2019  
Guide : Kusumit Ghoderao Summer Project
  - Successfully completed a reading project on **Game Theory** exploring the formal notions of strategy
  - The highlight was a detailed exposition on the **Game of Trust** created by developer Nicky Case
- **Battleships** Spring 2019  
Instructor : Prof. Amitabha Sanyal Course Project
  - Created a 1 and 2 player implementation of the board game Battleships using functional features like higher order functions while designing a probabilistic algorithm to determine the best move of the computer with improved algorithms for higher difficulty setting
- **Model Interpreter** Spring 2019  
Instructor : Prof. Amitabha Sanyal Course Project
  - Developed an interpreter for a subset of Racket using the **environmental model** of execution
  - Utilized knowledge of execution frames in the aforementioned **multi-paradigm** programming language
- **Cipher Decryption** Spring 2019  
Instructor : Prof. Amitabha Sanyal Course Project
  - Implemented a decryption algorithm using a strategy called **etai**, which finds possible substitutions for four of the more frequently occurring letters of the alphabet using libraries in Racket
  - Deciphered input data by running heuristics like **Dictionary Closure** and **Secret Word Enumeration** on it

## Interests

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Discrete Structures      Functional Programming      Mystery Novels      Carnatic Classical Music

## Programming Skills

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**Languages** C++, Python, MATLAB, Racket, Prolog, Bash, JavaScript  
**Tools** Git, L<sup>A</sup>T<sub>E</sub>X, HTML, CSS, Make, CMake, Matplotlib, AutoCAD, Solidworks

## Positions of Responsibility

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- Taught English to UG and PG students of IITB as part of a team of 15 students as a **Teaching Assistant** for **ELIT** (English Language Improvement and Training) Summer 2019

## Extracurricular Activities

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- Represented IIT Bombay in **Aquatics** at the **Inter IIT** Sports Meet 2018 at Guwahati. 2018
- Participated in **Boeing Aeromodeling** competition at Techfest 2018 as part of the team securing **second position** in IITB's RC Plane competition. 2018
- Attended **Vijyoshi**, the annual national science camp which serves as a forum for interactions between bright young students and leading researchers in the fields of Science and Mathematics 2017
- Was the quiz-master for **Spell Bound**, Mood Indigo's (IITB's annual cultural fest) spell bee competition 2018
- Bagged trophies in **mridangam** (a south indian percussion instrument) competitions at music and fine arts societies like Rasika Ranjani Sabha and Mulund Fine Arts 2017, 2018