Scholastic Achievements

- Secured **All India Rank 14** in **Joint Entrance Examination Advanced** amongst 150,838 candidates *(2020)*
- Secured **All India Rank 4** in **Joint Entrance Examination Main** amongst 10 lakh million candidates *(2020)*
- Received **Kishore Vaigyanic Protsahan Yojana (KVPY)** Fellowship (Stream SA) with an **All India Rank 77** out of **1 lakh** canditates from the Govt. of India *(2019-20)*
- Secured **Rank 10** in **AP Eamcet** out of 156,899 candidates conducted by the **APSCHE** *(2020)*
- Secured **Rank 18** in **TS Eamcet** out of 131,209 candidates conducted by the **TSCHE** *(2020)*

Olympiads

- Qualified amongst the **National Top 38** students in the Indian National Physics Olympiad (**INPhO**) *(2019-2020)*
- Among India's **Top 331** students selected for Indian National **Astronomy** Olympiad(**INAO**) *(2019-2020)*
- Among the **Top 802** students in the country to appear for **Chemistry** Olympiad(**INChO**) *(2019-2020)*
- Secured **National Top 1%** in **NSEP**(National Standard Examination, **Physics**), **NSEC**(National Standard Examination, **Chemistry**) and **NSEA**(National Standard Examination, **Astronomy**) *(2019-2020)*
- Secured state 1st rank in **National Mathematics Talent Search Competition** conducted by **Ramanujan Mathematics Academy** and **Mathematics Library** *(2014)*

Key Projects

Float-Moodle | *Course Project* | *Software Systems Lab* *(October'21 - Present)*
Guide: Prof. Amitabha Sanyal

- Implementing a **Learning Management System** to host online courses using **Django** framework
- Using **PostgreSQL** database with **Role Based Access Control** and **HTML & CSS** to implement the frontend
- **Over and above** the features of a typical Learning Management System
  - Implementing **backend automation** for **automatic evaluation** of assignment submissions using **shell scripts**
  - Implementing a **backend tool** for **assigning marks** for students assignment submission through a **csv file** of particular format uploaded by the instructor

Mandelbrot Zoom | *Course Project* | *Data Structures and Algorithms* *(October'21 - Present)*
Guide: Prof. Bhaskaran Raman

- Employed theory learnt in **simplecpp** graphics library to create an animation of self adjusting **Mandelbrot plot**
- Explored the **recursive detail** in the boundary of the **Mandelbrot Set** at increasing magnification
- The project revolves around the implementation of theory learnt in **Data Structures** and Algorithms Course

Github Profiles | *Course Project* | *Software Systems Lab* *(September'21)*
Guide: Prof. Amitabha Sanyal

- Built a **Web Application** using **Django** framework where users can share their **GitHub** account's statistics, **update** their own profile and also **explore** the profiles of other users
- Used **GitHub APIs** and **Python's requests** module to obtain users' data according on their GitHub usernames
- Used Django's **models** and class based **generic views** for rendering the **HTML** and organising the data respectively
- Used **PostgreSQL** database for storing all the necessary information and deployed the application on **Heroku**

Scotland Yard | *Course Project* | *Software Systems Lab* *(October'21)*
Guide: Prof. Amitabha Sanyal

- Using the concept of **Concurrency in Java** to implement the popular game of the same name
- Using Client-Server Model and threads to generate random and manual players to play with **synchronization**
- Using **semaphores** and **locks** as **synchronization primitives** to have a **mutual exclusion** on variable control

The Lasso Game | *Course Project* | *Computer Programming and Utilisation* *(Jan'21 - Feb'21)*
Guide: Prof. Bhaskaran Raman

- Used the **simplecpp** graphics package to develop a game which involves throwing a lasso in order to collect coins
- Used the concepts of **Object Oriented Programming** and **Inheritance** to create various objects involved

Other Projects

Web Development | *ICC Project* *(June'21)*
Guide: Nikhil Mandhani

- Created a website with a **comments section,** which displays the most **recent comment** on the top and also created an additional page to **approve the comments** before they get posted on the homepage
- Also written the code for **Internship portal** website. Added a login, registration, profile section using **PHP** where the user can add up to 5 resumes
- After logging in the user can then apply for **Available Internships** using the resumes he has already uploaded

Autograder | *Course Project* | *Software Systems Lab* *(April'21)*
Guide: Prof. Amitabha Sanyal

- Developed an auto grader using **Bash Scripting** which **downloads** files from given link, **organises** them according the each roll number and **evaluates** the C++ program files
- Marks are alloted based on the number of test cases passed and copied to .csv file which contain rollnumber/name of student and marks in each row
- Some statistics on the scores obtained like **average**, **highest** are given in seperate files

15 Puzzle | *Course project* | *Abstractions and Paradigms in Programming* *(May'21)*
Guide: Prof. Rushikesh Joshi

- Developed the classic **15-puzzle** game using **Object-Oriented Programming** and **FLTK graphics** package
- Implemented the features like the tiles **changing color** based on its position and take in **keyboard polling** to move the tiles on the board

Technical Skills

Languages	C/C++, Python, Java, Prolog, Bash, Sed, Awk
Software	Git, LaTeX, MATLAB, FLTK
Development	HTML, CSS, PHP, PostgreSQL, Django, Heroku
Python Libraries	SciPy, NumPy, Pandas, Matplotlib

Key Courses Undertaken

Computer Science	Computer Programming and Utilisation, Abstractions and Paradigms in Programming, Data Structures and Algorithms*, Data Analysis and Interpretation*, Software Systems Lab*, Discrete Structures*, Design and Analysis of Algorithms**, Digital Logic Design and Computer Architecture**, Logic for Computer Science**, Computer Networks**
Mathematics	Calculus, Linear Algebra, Ordinary Differential Equations I
Others	Introduction to Electrical and Electronic Circuits*, Electricity and Magnetism, Quantum Physics and application, Engineering Graphics and Drawing, Organic & Inorganic Chemistry, Physical Chemistry, Biology, Economics**

**To be completed by November'21*
***To be completed by April'22*

Extracurricular Activities

- Completed a year long **NSO** programme of **Badminton** at IIT Bombay *(2020-2021)*
- Led a team of three in the **EnB Buzz** competition conducted by **Entrepreneurship cell** of IIT Bombay *(2020)*
  - *Ideated a Startup to implement the National Education Policy 2020's vocational training proposal*
  - *Pitched a Business Model Canvas along with a presentation to the panel of judges*
- Actively participated in **Freshie La Vista** event conducted by **IIT Bombay Sports** *(July'21)*
- Participated in the National Science **(VIJYOSHI)** Camp at Indian Institute of Science (**IISc**), Bangalore *(2019)*
- Secured **All India Rank 671** in **B.Arch** out of 138,410 canditates *(2020)*
- Secured **Class Rank 1** in **International Master Mathematics Olympiad (IMMO)** *(2014)*
- Appreciated for the **Good Performance** in **Unified Cyber Olympiad (UCO)** exam *(2013)*