

# Sarthak Kapoor

SOPHOMORE YEAR UNDERGRADUATE - COMPUTER SCIENCE AND ENGINEERING - IIT KANPUR

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## Education

### Indian Institute of Technology, Kanpur

BACHELOR OF TECHNOLOGY IN COMPUTER SCIENCE AND ENGINEERING

CPI - 9.5/10.0(present)

July 2018 - April 2022(Expected)

### C.R.P.F. Public School

HIGH SCHOOL, 12TH GRADE

Percentage - 97%

April 2017 - March 2018

HIGH SCHOOL 10TH GRADE

CGPA - 10.0/10.0

April 2015 - March 2016

## Scholastic Achievements

### Tower Research Scholarship

Awardee (received in 2nd year B.Tech.)

### Academic Excellence

Award, IIT Kanpur(awarded to top 5% freshmen based on academic performance)

### Director's Scholarship

Awardee, IIT Kanpur(awarded to top rankers of the institute)

### All India Rank 142

JEE Advanced(amongst 230000 candidates)

### All India Rank 360

JEE Mains(amongst 1.2 million candidates)

### KVPY

Scholarship Awardee(conducted by Indian Institute of Science and Technology)

### NTSE

Scholarship Awardee(National Talent Search Examination)

### National Top 1%

in National Standard Examination in Chemistry(NSEC)

## Projects

### AlgorithmsInDepth

PROGRAMMING CLUB

Algorithms-In-Depth

May 2019 - July 2019

- A learning project, which included study as well as implementation of various optimized algorithms.
- Regular discussions were held and extensive practice of all the covered algorithms was carried out.

### Connect-4 game in python

PROJECT UNDERTAKEN UNDER PROF. PURUSHOTTAM KAR

Connect4

Sept 2018 - Nov 2018

- The AI player was implemented using both Minimax Algorithm and Monte-Carlo Simulation.
- The game had the unique feature of user specifying the board size.

### Life@IITK

PROGRAMMING CLUB, BEST SOCIAL PROJECT

Lif@IITK

May 2019- July 2019

- Implemented an app (both web and mobile) which populated the feed of a user based on the events/clubs of his choice.
- The app also had the feature of generating a personalised calendar of a person based on his current courses and events he chooses.

### IITK Summer of Code

IIT KANPUR, SUMMER INTERN PROJECT

May 2019- July 2019

- Implemented an e-commerce web-app from scratch which would help small scale manufacturers bring their business online.

### Computer Securities

PROGRAMMING CLUB

May 2019- July 2019

- A learning project, which included building of basic CTF skills and efficient implementation of various encryption schemes like AES, DES.
- Worked on breaking some cryptographic systems by exploiting the algorithms.

## Relevant Coursework

Introduction to Programming

Discrete Mathematics

Data Structures and Algorithms

Real Analysis and Multivariable Calculus(A\*)

Linear Algebra and Differential Equations

Computer Organisation(j)

Software Development(i)

Mathematics for Computer Science(i)

A\* - Exceptional Performance

i - In Progress

## Skills

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**Proficient** C++, Python, Bash, NumPy  
**Exposure** Java, Javascript, MATLAB, Verilog  
**Utilities**  $\text{\LaTeX}$ , Shell Utilities, Git, PostgreSQL

## Position of Responsibility

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### Programming Club, IIT Kanpur

SECRETARY

March 2019 - Present

- Responsible for conducting contests and activities for campus community and conducting lectures and workshops on various topics for interested students.

### Counselling Service, IIT Kanpur

ACADEMIC MENTOR

July 2019 - Present

- Responsible for teaching concepts of two first year courses(Real Analysis and Multivariable Calculus, Linear Algebra and Differential Calculus) and taking various lectures on them.

### Hall-5, IIT Kanpur

WEBMASTER

[Hall-5](#)

July 2019 - Present

- Responsible for maintaining and developing the website of Hall of Residence - 5 at IIT Kanpur