Abhimanyu Sethia

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EDUCATION

Indian Institute of Technology, Kanpur	Kanpur, UP
*BS (Mathematics and Scientific Computing)- **CPI-9.1/10***	*Jul 2019 – present*
The Shishukunj International School	Indore, MP
*10th Standard- **10/10 CGPA**,12th Standard- **92.4%***	*Apr 2005 – Apr 2019*

ACHIEVEMENTS AND AWARDS

Academic Excellence Award, IIT Kanpur	2019-20
All India Rank 731 | JEE Advanced	2019
All India Rank 805 | JEE Main	2019
All India Rank 199 | KVPY Fellow, IISc Bangalore	2018
Attended National Science Camp (Vijyoshi)	2019
Cleared First Stage | National Talent Search Examination (NTSE)	2018
Represented state in **CBSE National Science Exhibition**, Delhi	2018

Selected from among 500 entries in **Times of India Junior Editorial Contest** | Designed the Indore city newspaper issue on Children's day

PROJECTS

IITK Bucks	Mar 2020 – Jul 2020
Code and Documentation: *github.com/abhimanyusethia12/IITK_Bucks*	*Programming Club, IIT Kanpur*

- Developed a fully functional **blockchain-based cryptocurrency** node
- Created a CLI (Command Line Interface) for opening account, transferring coins, checking balance & setting an alias
- Coded in **Python** using **Cryptography library**
- Set up server and APIs in **Flask**
- Implemented **multithreading** in Python for miner thread using **threading library**

Distributed Mechanism Design using Blockchain	Oct 2020 – Dec 2020
Project Report: *home.iitk.ac.in/ sethia/report.pdf*	*Prof. Swaprava Nath, IIT Kanpur*

- Reviewed literature on **auction theory** and **manipulations of centralised auctions**
- Simulated decentralised auctions using Smart Contracts on **Euthereum blockchain**
- Created a **privacy-preserving decentralised auction**, using 'secret' contracts & Secret Network
- Modelled a game on the auction - derived that participating in our auction is a dominant strategy for both the sellers & bidders
- ***Code:*** github.com/abhimanyusethia12/CS711-secret-VCG

Private Computation Using FSS	Mar 2020 — Jun 2020
Code: *github.com/abhimanyusethia12/Obliv-Rust*	*Programming Club, IIT Kanpur*

- Reviewed literature on **Functional Secret Sharing** (FSS), **Fully Homomorphic Encryption** (FHE) and **Garbled Circuits**
- Implemented Functional Secret Sharing scheme algorithm in **Rust** : first such crate in Rust
- Wrote **testing and benchmarking code** in Rust

Campus Discuss App (Backend)	Jan 2020 — Mar 2020
Code: *github.com/abhimanyusethia12/Campuss-Discuss-Backend*	*Programming Club, IIT Kanpur*

- Participated in **ideation and conceptualisation** of Reddit-like discussion app for IITK campus
- Coded backend framework for the app in **Django**
- **Created APIs** for logging in, following and posting

TECHNICAL SKILLS

Proficient: Python, C, C++, HTML/CSS, LaTeX, Git, Bash, Flask, AutoCAD
Beginner: Javascript, Java, Rust, Solidity

Positions of Responsibility

Secretary | Programming Club, IIT Kanpur   Mar 2020 – Present
- Conducted lectures/workshops for **more than 500 students** interested in programming
- Organised **Monthly Sport Programmer Contest** and **ML Hackathon Series**
- Wrote code to automate compilation of contest result by using Codeforces APIs
- Wrote **technical blogs** for Programming Club website

Senator | Students' Senate, IIT Kanpur   Aug 2019 – Feb 2020
- Elected by an **electorate of about 1200 students** to represent batch in the Students' Senate
- Led a **two-week long campaign** with a team of **20 campaigners**- included wing visits, Institute open-house, SOP Box and social-media outreach
- Executed various initiatives like uniform work-load distribution for students, negotiated with Warden for instituting Hall Executive Committee

Company Coordinator | Student Placement Office, IIT Kanpur   Jul 2020 – Present
- Coordinated placements and intern-placements for **1200** and **600 students** respectively
- Point of Contact for top recruiters like Google and JP Morgan Chase -
- Acted as a link between the HR and candidate- ensured that no candidate misses interview due to clashes

Senior Member | Vox Populi (journalism body), IIT Kanpur   Jul 2019 – Present
- Ideated & created journalistic content- including interviews, reports, surveys, data/video/photo journalism, investigatory articles
- Initiated and led the 'Unorthodox Career Choices' interview series (link), with **over 8 editions published**
- Developed ability to articulate in objective, simple and unbiased manner

Student Guide | Counselling Service, IIT Kanpur   Aug 2020 – Present
- Entrusted with responsibility of 5 freshman students- to ensure their smooth transition into college life

Academic Mentor | Counselling Service, IIT Kanpur   Aug 2020 – Present
- Helped students cope with the rigorous programming course ESC101
- Conducted **academic classes** and **one-to-one doubt solving** sessions

Secretary | International Relations Wing, IIT Kanpur   Apr 2020 – Present
- Interviewed more than 20 seniors/alumni who've successfully completed a foreign research internship
- Drafted and compiled their apping experiences and tips and **created first-such 'apping' guide in IITK** (link)
- Edited blogs for foreign intern blog series 'RISE with Seniors' (link)

Executive Member | Stamatics (Math and Statistics), IIT Kanpur   Jun 2020 – Present
- Ideated and conducted a national-level online Math Treasure Hunt Competition, Mathemania (website)
- Received participation from **more than 600 college and high school students** from across the country

Secretary | English Literary Society, IIT Kanpur   Mar 2020 – Present
- Wrote **book reviews** for society's blog and IITK's annual literary publication 'Meander' (link)
- Conducted live online word games competition for **more than 150 freshers**

Coursework

Probability and Statistics (Ongoing)
Computational Cognitive Science (Ongoing)
Data Structures and Algorithms | Grade: A
Game Theory and Mechanism Design | Grade: A
Introduction to Computer Programming in C | Grade: A
Linear Algebra and Ordinary Differential Equations | Grade: B
Deep Learning and Neural Networks | Coursera

Interests and Hobbies

Blogging: Write book reviews, document travel and personal experiences and random fascinating ideas on my personal blog (abhimanyusethia.com)
Reading: regularly read national dailies and online magazines, avid English fiction reader (My reading list)
Speaking: excelled in international and national level Model United Nations, Debating competitions