# Sarthak Rout

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Department of CSE, IITK +91-9664087578 **EDUCATIONAL BACKGROUND** Institute CPI/% Year Degree/Exam Indian Institute of Technology, Kanpur 2019 - Present B.Tech (Computer Science and Engineering) 9.5/10 2019 CBSE(Class XII) Sir Padampat Singhania Public School, Kota 95.2/100 2017 CBSE(Class X) DAV Public School, Chandrasekharpur, BBSR 10/10

#### SCHOLASTIC ACHIEVEMENTS

Second Year Undergraduate

• Recipient of **Academic Excellence Award** from IIT Kanpur

2019

sarthakr@iitk.ac.in

• Secured **All India Rank 202** in JEE (Advanced) among over 0.2 million students

2019

• Secured **All India Rank 207** in JEE (Main) among over 1.3 million students

2019

• Qualified for OCSC of IJSO and IAO 2016, IOAA 2017, IOAA 2018, IChO and IOAA 2019 organised by HBCSE.

• Recipient of **Kishore Vaigyanik Prostahan Yojana (SA)** fellowship award with AIR **42**, IISc Bengaluru

2018

• Recipient of **National Talent Search** Scholarship, NCERT

2017

### **PROJECTS**

• **TestApp - Live** (Autumn 2020) Self Project

- Developed an assessment application using Angular integrated with Firebase.
- Used RxJs library and concepts of routing, services, observables and modularity.
- Used it to conduct online MCQ exam for about 20 students.
- Private Computation using Cryptographic Primitives

(May '20 - Jul '20)

(Aug '19 - Nov '19)

By SnT Club | Mentor: Aditya Gulati | IITK

- Learnt about Private Computation, FSS, FHE, Yao's Garbled Circuits etc.
- Learnt about GRPC, Compiler Theory and Rust.

• InfoSec IITK (Feb '20 - Apr '20)

By ACA | Mentors: Priydarshi Singh, Varun Goyal | IITK

- Learnt about **SQL Injection**, **XXS and XXE injection** along with how to prevent them.
- o Found critical vulnerabilities in OARS, IITK
- gradeLess Course Project ESC101

Under Dr. Piyush Rai, CSE

- o Developed a **webapp** to check marks of answer sheets having True/False and MCQ questions.
- We used **Angular 8** as Frontend and **Express** as Backend with **Python** as scripting language for the Image Processing and Machine Learning part.

### **TECHNICAL SKILLS**

• **Programming Language:** C, C++, Python, Type-Script

• Libraries: Pandas, SciKit-Learn, OpenCV, Selenium

• Tools: GitHub, VS Code, LATEX

# **RELEVANT COURSES**

Fundamentals of Computing\*
Data Structures and Algorithms
Introduction to Electronics

Real Analysis and Calculus\* Numerical Analysis\* Linear Algebra and ODE Number Theory

 $(* \equiv A* for exceptional performance)$ 

# Position Of Responsibility and Extracurriculars

- Secretary, Programming Club
- Secretary (Startup Internship Program), Entrepreneurship Cell
- Interned at Edvizo as Mentor in Maths teaching JEE Asiprants.
- Secured 16th position of Merit in HCL HackIITK Hackathon for detection of malware using Machine Learning. **Link**
- Competitive Programming: Codechef

Hyperlinks are present at appropriate places. Last Updated: January 10, 2021