Devanshu Singla

Sophomore • Indian Institute of Technology, Kanpur

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SELECTED PROJECTS

CAMPUS DISCUSS ● SNT CLUB, IITK
Summer Project | Summers 2020

- Implemented a **webapp** using JS libraries like **ReactJS**, **Redux**, **Material UI**, etc.
- Implemented a **React Native app** using **Expo** and used **Typescript** for better type checking.

CHROMEBOT ● SELF PROJECT
Summers 2020   *devanshusingla/chromebot*

- Implemented a **chrome extension** in **JavaScript** with an interface of bot linked with a local **NodeJS** server made using **ExpressJS** to perform tasks on computer and browser.
- Tasks implemented include setting alarm for competitive programming (cp) contest, scraping codeforces contest and creating files with code template in local system, etc.

PRIVATE COMPUTATION USING CRYPTOGRAPHIC PRIMITIVES ●
SNT CLUB, IITK
Summer Project | May. 2020 - Jul. 2020   *Crypto-IITK/Obliv-rust*

- Implemented **Distributed Point Function (DPF)** library using the principles of **Function Secret Sharing (FSS)** in Rust.
- Learned about various Cryptographic Primitives used for Private Computation like **Function Secret Sharing**, **Fully Homomorphic Encryption**, **Yao's Garbled Circuits** and **Shamir's Secret Sharing**.
- Learned about **Multithreading**, **Memory Optimizations**, **Ownership Laws** in Rust language.
- Used libraries like **gtest**, **grpc**, **google/benchmark**

RELEVANT COURSES

- Data Structures and Algorithms
- Fundamentals of Computing
- Introduction to Electronics
- Real Analysis and Calculus
- Linear Algebra and ODE
- Game Theory and Mechanism Design
- Computer Organization#
- Modern Cryptology#
- Quantum Computing#
- Software Development#

≡ ongoing courses

EDUCATION

B. TECH, CSE
IIT Kanpur | Exp. 2023
CPI: 9.27/10.0

MODERN VIDYA NIKETAN SEC-17, FARIDABAD
Grade XII, CBSE: **96.4%**

ST. THOMAS SR. SEC. SCHOOL, FARIDABAD
Grade X, CBSE: **10 CGPA**

ACHIEVEMENTS

- **Academic Excellence Award** For academic year 2019-20
- **AIR 191** | JEE Adv. 2019
- **AIR 182** | JEE Mains 2019
- **AIR 131** | KVPY 2018 (SX)
- Qualified for INMO 2019

TECHNICAL SKILLS

C++ • C • Rust • Python • Bash HTML • CSS • React-Native Javascript • ReactJS • NodeJS NumPy • Git • LaTeX • Radare2

OTHER PROJECTS

- Creating Game Theoretic-Models to analyze Biodiversity | CS711 Course Project, IITK | Nov. 2020 - Dec. 2020
- Infosec IITK | ACA, IITK | Summer Project | May. 2020 - Jul. 2020

RESPONSIBILITIES

STUDENT GUIDE
Counselling Service IITK | Nov. 2020 - Present

- Helped six freshman to get acquainted with campus life and academics at IIT Kanpur.