

PRATEEK CHAUDHURY

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ND-14, Zanskar House, IIT Delhi

<https://github.com/Prat1510>

EDUCATION

Indian Institute of Technology, Delhi

Bachelor of Technology

CGPA: **8.9**

July 2019 - Present

Department of Computer Science

SAI Internatinal School, Odisha

Senior High School

Percentage: **94.8%**

May 2017 - May 2019

SCHOLASTIC ACHIEVEMENTS

Top 7% in IIT Delhi: Awarded top 7% merit award in 2019-20 at IIT Delhi

JEE Advanced Rank 83: Ranked 83 amongst 161,000 candidates.

JEE Mains Rank 26: Ranked 26 amongst 1.15 million candidates.

KVPY Fellowship: Awarded KVPY Fellowship by securing AIR 56.

NSEA,NSEP,NSEC: Qualified NSEA, NSEP, NSEC to secure 1st, 3rd, 2nd position in the state in INAO, INPHO, INCHO, respectively, which are precursor to the prestigious IAO, IPHO, ICHO respectively.

NTSE Scholar: Awarded NTS scholarship by NCERT in the year 2017 being amongst the top 1000 students across India.

RELEVANT COURSES

Computer Science

Introduction to computer science, Numerical computation and data science, Data Structures and Algorithms, Discrete mathematical structures, Digital logic and system design, Programming languages*, Computer Architecture*, Design Practices*

Mathematics and Electronics

Multi- variable Calculus, Linear Algebra and Differential Equation, Probability and Stochastic processes, Introduction to electrical engineering engineering, Signals and Systems

From CourseEra

Nueral networks and deep learning, Natural Language Processing Specialization(4 courses)*

(* courses to be completed by April 2021)

PROJECTS

Multi-modal deep-learning for NLP

December 2020 - continuing

Prof. Srikanta Bedathur, IIT Delhi

- Collecting images and text related to COVID19 from Wikipedia dumps. Then, parse through the collected data and structure it for the next step.
- Build a suitable algorithm to train our own word embedding.
- Finally, will use the trained word embedding to create a COVID19 specific search engine.

Traffic density estimator

February 2021 - March 2021

Prof. *Rijurekha Sen* (Course project-COP290)

- Takes in a video and estimate the queue density (total vehicle density) as well as dynamic density (moving vehicle density).
- Implemented various methods for optimising or speeding up the algorithm by using subsampling, spatial multi-threading and temporal muti-threading and analysed their effect on accuracy.

Dynamic memory allocator

November 2020 - December 2020

Prof. *Rahul Garg* (Course project-COL106)

- Created a system to perform dynamic memory allocation by implementing the following data structures in java.
- Implemented a doubly linked list first and then a Binary Search Tree to allocate memory.
- Finally, made the implementation of the AVL Tree to allocate memory very efficiently.

Digital clock

November 2020 - December 2020

Prof. *Anshul Kumar* (Course project)

- Designed a digital clock based on BASYS3 FPGA board in VHDL language.
- Time is displayed on 7-segment display and consisting of different modes and functionalities.

Simple image processing using python

October 2019 - November 2019

Prof. *Huzur Saran* (Course project-COL100)

- Edge detection algorithm.
- Implementing an algorithm that finds a path from top of the image to the bottom which has the least energy.
- Averaging filter.

TECHNICAL SKILLS

Languages: Python, C++, C, Java, CSS, HTML, VHDL, SML*

Framework: Autodesk Inventor, Android Studio, Github, L^AT_EX

Operating System: Mac OS, Windows, Ubuntu

Libraries: Numpy, Panda, NLTK*, OpenCV, SDL*

(* currently learning)

EXTRA-CURRICULAR ACTIVITIES

- Worked as a JEE Mentor for 3 students in a non-profit initiative **Quaran-Teach** which had 300+ students across the country.
- Represented my hostel in basketball in IIT Delhi general championship.

POSITION OF RESPONSIBILITY

- **ISC representative** (*ISC, IIT Delhi*)
Selected as one of the 13 representatives of the indoor sports club at IIT Delhi since spring of 2020.