Sanchit **Agrawal**

Third Year Undergraduate · Indian Institute of Technology Kanpur

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Education

Indian Institute of Technology Kanpur — *Kanpur, Uttar Pradesh*

Bachelor of Science in Computer Science Engineering — *Jul. 2018 - May 2022 [Expected]*

- Cumulative Performance Index (CPI) - **9.7/10.0**

Sardar Patel Vidyalaya — *Delhi*

Central Board of Secondary Education, CBSE

- 2018 12th Grade - **98.2%** Score
- 2016 10th Grade - **10.0/10.0** CPI

Honors & Awards

2020	**Highest personal rating of 1997,** in codechef (Handle: roberticey)	
2020	**Highest personal rating of 1843,** in codeforces (Handle: Roberticey)	
2020	**A* grade in 6 courses,** Awarded to top 2% students based on Academic performance in a course	*IIT Kanpur*
2019	**Academic Excellence Award,** Awarded to top 5% freshmen based on Academic performance	*IIT Kanpur*
2018	**Silver Medal,** 50th International Chemistry Olympiad	*Czech Republic and Slovakia*
2018	**All India Rank 176,** Joint Entrance Examination Advance, 200,000 candidates	*India*
2018	**All India Rank 57,** Joint Entrance Examination Mains, 1,000,000 candidates	*India*
2016	**All India Rank 97,** Kishore Vaigyanik Protsahan Yojana (KVPY), Indian Institute of Science	*India*

Internship Projects

Proprietary definition of Global Health & Safety Index — *Bengaluru*

MeTripping Technologies — *April 2020 - May 2020*

- Using **scrapy, scrapy-splash** and **selenium**; crawled various websites over the internet and extracted data related to COVID-19 statistics, population, air-pollution, and general healthcare from across the globe.
- Using above extracted data, created multiple metrics to quantify the health and safety of a region.
- Performed necessary **back-end** processing to map the metrics of regions to the existing database of cities.
- Created a *modal* to display the various features at the **front-end** representation

Activity Classification and Recommendation — *Bengaluru*

MeTripping Technologies — *May 2020 - June 2020*

- **Theme Allocation:** *cleaned, pre-processed* and *lemmatized* the available text description data and performed **LDA Topic Modelling** on it.
- **Clustering:** Using **DBSCAN** algorithm, created a program to dynamically cluster activities together at a city level according to their latitude-longitude data.
- **Address Extraction:** Created an **Address Parser** to extract text address from the text description of the activity

Self Projects

Created a Path-finding Visualizer Project

- Using the **pygame** library, built a python program to visualize the Dijkstra's algorithm finding the shortest path between 2 points on a 2-D grid while avoiding obstacles.

Developed a Software to implement Commands by identifying Hand Gestures

- Built a deep neural network model using Tensorflow to identify numbers from 0 to 5 in sign language.
- Works in real-time using visual input for Webcam to perform certain operations depending on the sign identified.

Coursework

- *Data Structures and Algorithms**
- *Discrete Mathematics for Computer Science*
- *Computer Organizations*
- *Logic for Computer Science*
- *Software Development and Operations*
- *Fundamentals of Programming**
- *Real Analysis and Multivariable Calculus**
- *Linear Algebra and Ordinary Differential Equations*
- *Complex Variables*
- *Deep Learning Specialization***

**Received A* grade*
***Coursera Online Courses*

Technical Skills

Languages (Familiar) Python, C, C++, HTML
Languages (Basic) Matlab, Octave, Bash, CSS, Java, Javascript
Tools MySQL, LaTeX, Verilog, Tensorflow, Scrapy, Selenium, MongoDB, Git, Gensim
Platforms Linux, Windows