

Sanchit Agrawal

THIRD YEAR UNDERGRADUATE · INDIAN INSTITUTE OF TECHNOLOGY KANPUR

☎ (+91) 90-2488-8089 | ✉ sanagrwl@iitk.ac.in | 📱 Roberticey

Education

Indian Institute of Technology Kanpur

BACHELOR OF SCIENCE IN COMPUTER SCIENCE ENGINEERING

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

Kanpur, Uttar Pradesh

Jul. 2018 - May 2022 [Expected]

Sardar Patel Vidyalaya

CENTRAL BOARD OF SECONDARY EDUCATION, CBSE

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

Delhi

Honors & Awards

- 2020 **A* grade in 6 courses**, Awarded to top 2% students based on Academic performance in a course
- 2019 **Academic Excellence Award**, Awarded to top 5% freshmen based on Academic performance
- 2018 **Silver Medal**, 50th International Chemistry Olympiad
- 2018 **All India Rank 176**, Joint Entrance Examination Advance, 200,000 candidates
- 2018 **All India Rank 57**, Joint Entrance Examination Mains, 1,000,000 candidates
- 2018 **All India Rank 8**, Vellore Institute of Technology Engineering Entrance Examination, 200,000 candidates
- 2017 **Attended OCSC camp in Astronomy**, HBCSE, about 50 students selected from 40,000 applicants
- 2016 **All India Rank 97**, KVPY Scholar, Indian Institute of Science and Government of India
- 2016 **NTSE Scholar**, National Council Of Educational Research And Training and Government of India

IIT Kanpur

IIT Kanpur

Czech Republic and Slovakia

India

India

India

India

India

India

Internship Projects

Proprietary definition of Global Health & Safety Index

ME TRIPPING TECHNOLOGIES

Bengaluru

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

ME TRIPPING TECHNOLOGIES

Bengaluru

May 2020 - June 2020

- **Theme Allocation Approach 1:** *cleaned, pre-processed* and *lemmatized* the available text description data and performed **LDA Topic Modelling** on it.
- **Theme Allocation Approach 2:** using existing hierarchical groupings of the data, performed a theme allocation by assigning theme scores to each of the groups.
- **Clustering:** Using **DBSCAN** algorithm, created a program to dynamically cluster activities together at a city level according to their latitude and longitude data.
- **Address extraction:** Created an **Address Parser** to extract text address from the text description of the activity

Coursework

- *Data Structures and Algorithms**
- *Discrete Mathematics for Computer Science*
- *Computer Organizations*
- *Logic for Computer Science*
- *Software Development and Operations*
- *Machine Learning by Stanford***
- *Neural networks and Deep Learning***
- *Improving Deep Neural Networks***
- *Fundamentals of Programming**
- *Real Analysis and Multivariable Calculus**
- *Linear Algebra and Ordinary Differential Equations*
- *Complex Variables*
- *Introduction to Economics*
- *Structuring Machine Learning Projects***
- *Convolutional Neural Networks***
- *Sequence Models***

Received A grade

**Coursera 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

Self Projects

- **Created a Path-finding Visualizer Project**
 - Using the **pygame** library, built a python program to find the shortest path between 2 points on a 2-D grid avoiding obstacles.
 - The project helps visualise how the Dijkstra's algorithm actually proceeds using the grid.
- **Designed A Deep Neural Network of Variable Architecture**
 - Developed a Python program to train a deep neural network with visual data input and then classify all test inputs based on the trained network.
 - An implementation of the software trained on about 200 images of cats gave an **80% accuracy** in the testing phase.
- **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.