

SHIKHAR SAXENA  
B.Tech. Chemical Engineering  
(With Minors in Mathematics)  
UG(III Year II Semester)  
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Indian Institute of  
Technology  
Roorkee



#### Area of Interest

Data Structure and Algorithm, Machine Learning and Deep Learning

StopStalk(Competitive Coding Portfolio): <https://www.stopstalk.com/user/profile/shikhar2402>

#### Education

Year	Degree/Examination	Institution/Board	CGPA/Percentage
2020	B.Tech. 2nd Year	Indian Institute of Technology, Roorkee	8.45
2017	Twelfth	De Paul School, Budaun	95.0 %
2015	Tenth	De Paul School, Budaun	92.0 %

#### Internships

##### Summer Internship | Algo One

30<sup>th</sup> April, 2020 – 29<sup>th</sup> June, 2020

- The Project was basically to deal with the shortcoming which are present on the Google Finance website.
- Used Pygsheets and Gspread Api of python for working on Google Spreadsheet and extracting each information of an individual stock.
- Construction of historical and real-time synthetic indexes in equity markets using Google Finance data.
- Used Dynamic Visualization tools for visualizing the indexes in stock markets.

##### Summer Internship | AllthingsConnected

1<sup>st</sup> Feb, 2021- 30<sup>th</sup> March, 2021

- The project was basically to work on audio data which has been scrapped using selenium. The audio data contains speeches of leaders like Donald Trump and Narendra Modi.
- Used Facebook latest library Wav2vec from hugging face to convert audio to text.
- Used transfer learning methods from bert transformer from hugging face library to extract the word embedding and creating a deep learning neural- network which involves the use of Bi-Lstm to predict the sentiments of the speeches.

#### Projects

##### Captcha Filling | Artificial Intelligence and Electronic Society(ArIES)

- This project deals with text detection of captcha images from any websites.
- It uses a Optical Character Recognition (OCR) to images using Tesseract, Python, and OpenCV to find the text the images.
- Further Selenium Web-Driver was used for automatic filling of captcha on the website.
- This project was to be displayed in Srishti'20, The Annual Technical Exhibition.

##### Pedestrian Detection in Videos | Data Science Group

- Build a model for pedestrian detection from videos.
- Used OpenCV Library along with harcascale classifier to detect human face.
- Used as a surveillance system for numerous utility areas like event detection, crowded vicinity evaluation, gender classification, fall detection in elderly humans, etc.

#### Kaggle Projects

##### House Price Prediction using XGBoost Regression

- ❖ Worked with the housing price dataset in Kaggle which contained some 80 different variables. Used feature engineering and stacked the models to obtain 222 features.
- ❖ a final prediction score of 0.115 placing me in top 10% in the leaderboard.
- ❖ <https://www.kaggle.com/shikhar721/house-prediction-regression>

##### Google Stock Prediction

- ❖ Developed a model to predict the stock of google market based on the given data set using LSTM in keras.
- ❖ Applying a Lstm layer on the featured dataset to predict the stock. Although it should be done by time series but Lstm too give a good result
- ❖ <https://www.kaggle.com/shikhar721/google-stock-prediction>.

##### Titanic : Machine Learning from Disaster

- ❖ Developed a model to predict the people survival rate in Titanic Disaster based on the given data set using Python
- ❖ Incorporated the usage of Binary Classifications and Ensembling techniques in the above-mentioned process
- ❖ <https://www.kaggle.com/shikhar721/titanic-dataset/edit>

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### **Awards / Scholarships / Academic Achievements**

- Jee Advance(2018) - AIR 2926
- Jee Mains(2018) - AIR 5817

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### **Skills**

**Computer languages:** C++, Python , Java

**Software Packages:** Excel, Google Spreadsheet, Jupyter Notebook , Spyder , Slack , Microsoft Office

**Additional Courses Taken:** Economics

**Languages Known:** English (SRW) , Hindi (SRW)

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### **Positions of Responsibility & Extra Curriculars**

#### **Member | Data Science Group**

We strive to nurture the Machine Learning and Deep Learning culture at IIT Roorkee by making various projects.

#### **Executive | National Service Scheme**

- Active member in N.S.S

#### **Executive | The Chemical Engineering Student's Society**

- Arranges lecture of distinguished personalities in department of Chemical Engineering.

#### **Undergraduate Teaching Assistant | Academic Reinforcement Programme IIT Roorkee**

- UGTA for a batch of 25 freshmen for Mathematical Methods during the spring semester.

#### **Volunteer | Unnat Bharat Abhiyan**

- Volunteered in Unnat Bharat Abhiyan.