



Sakshi Gupta
Chemistry
Indian Institute of Technology, Bombay

17B030015
B.S.
Gender: Female
DOB: 13-10-1999

| Examination | University | Institute | Year |
|-------------|------------|------------|------|
| Graduation | IIT Bombay | IIT Bombay | 2021 |

Scholastic Achievements

- Receiving the **INSPIRE** scholarship, awarded by the Department of Science and Technology, GOI
- Achieved **99.2** percentile in JEE Mains'17 and **97.3** percentile in JEE Advanced'17

Professional Experience

- Social Media Posts Enablement | Indegene - Data Science Intern** Apr-Jun '20
- Built an **automated data pipeline** for enabling social media capabilities in **AI/ML** based products
 - Researched and compared** different social listening tools to extract relevant social media data
 - Extracted **clinical entities** present in the posts from multiple social media channels to build **knowledge graph**
 - Modelled data** to build graphs using **Numpy, Pandas and Matplotlib** for analyzing relationship between entities, key messages and post-types storing this data in **MongoDB**
 - Created **dynamic dashboard** for statistical analysis using **ElasticSearch, Logstash, Kibana (ELK) Stack**

Key Projects

- Sign Language Decipherer | Self Project** Jul '19
- Designed a **multi class classifier** using TensorFlow to map images of sign language to corresponding numbers
 - Constructed a **deep neural network** with 2 hidden layers and optimized it using **Adam Optimizer**
- Anomaly Detection in Time Series Data | Prof.Snehan Kekre | Self Project** Jul '20
- Preprocessed **S&P 500 Index** data to design and train **LSTM autoencoder** using **keras** to detect anomalies
 - Created interactive charts and plots with **Plotly** and **Seaborn** to analyze the data and sudden change in prices
- Car Detection Using YOLO | Self Project** Sep '19
- Implemented **object detection** on cars using **YOLO model** for an application in autonomous vehicle
 - Exploited techniques like **non-max suppression** using **IOU** and thresholding for eliminating overlapping boxes
- Movie Recommender System | Self Project | Stanford University** Jul '19
- Designed and optimized a **Movie Recommendation System** using data set comprising of user ratings of different movies to **recommend** a set of **most relevant movies** for every user
 - Used **Collaborative Filtering Learning Algorithm** with **regularization** to train the model in **octave**
- Interactive Website | Self Project | Johns Hopkins University** Jun '20
- Developed an **interactive and responsive website** using **HTML, CSS, Bootstrap** and **Javascript**
 - Integrated website to an online server using **ajax** to dynamically get website content without reloading the page
- Light Regulated Ion Transporter | Prof.Nandita Madhavan | IIT Bombay** Jan-Apr '19
- Experimented the synthesis of **light gated ion transporter** containing pyridine and azobenzene unit
 - Exploited techniques such as **Column Chromatography, Thin Layer Chromatography(TLC)**, **Nuclear Magnetic Resonance(NMR)** and **Mass Spectroscopy** to purify and analyze the products formed

Technical Skills

- Programming Languages & Skills:** Python, Javascript, HTML, CSS, SQL, Data Structure & Algorithm
- Softwares/Frameworks:** SolidWorks, AutoCAD, LtSpice, Latex, Kibana, TensorFlow, PyTorch
- Key Courses Undertaken:** Foundations of Intelligent and Learning Agents *, Data Analysis for Chemists
- Courses/Certifications:** **Machine Learning** - Prof.Andrew Ng, Stanford University ('19) || **Deep Learning Specialization** (Deep neural networks, Style Transfer, CNN and RNN)- Prof.Andrew Ng, Deeplearning.ai ('19)
HTML, CSS and Javascript for Web Developers - Prof.Yaakov Chaikin, Johns Hopkins University ('20)
Financial Markets - Prof. Robert Shiller, Yale University ('20)

* To be completed by Dec'20

Extra-Curricular Activities

- Cadet at National Cadet Corps** 2013-15
- Received '**A**' **Certificate** of National Cadet Corps under the unit **1 Raj Air Squadron Jaipur NCC**
 - Attended the **annual training camp** of 10 days under unit **1 Raj Air Sqn Ncc Jaipur** held at jambdoli
 - Awarded **1st Runner-up** prize in **aeromodelling competition** held among cadets
- Social Volunteering at Abhyuday** 2017
- Organized and managed an event **Awaaz** in the **annual social fest** of IIT Bombay
 - Contacted and coordinated with **50+ NGOs and colleges** for their support and participation in the fest
- Others**
- Attended the **summer camp** of **martial arts** and was promoted to the first level (Yellow Belt) 2014
 - Fabricated a **remote controlled airplane** from scratch over the course of three weeks in a **team of 4** 2017