

# PRAKHAR RATHI

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## Education

### Shiv Nadar University

*B.Tech in Computer Science Engineering*

**Aug. 2018 – April 2022 (expected)**

*Greater Noida, Uttar Pradesh*

**Cumulative GPA:** 9.18 (Current)

**Societies:** Google DSC (Lead), Debating Society (President), ACM (Vice Chair), Business Society (Co-ordinator)

**Honors:** Dean's List for Academic Excellence (Top 5% in the department)

## Technical Skills

**Languages:** Python, R, HTML/CSS, SQL, C, Java, PHP

**Developer Tools:** STATA, Excel, Google Cloud Platform, L<sup>A</sup>T<sub>E</sub>X, Streamlit

**Technologies/Frameworks:** Django, Flask, Keras, PyTorch, Linux, Bootstrap

## Core Competencies

- |                                    |                             |   |  |
|------------------------------------|-----------------------------|---|--|
| • Data Analytics and Visualization | • Machine Learning<br>• NLP | • Business Intelligence<br>• Predictive Modelling | • Database Management<br>• Public Speaking |
|------------------------------------|-----------------------------|---|--|

## Experience

### Inria, France

*Research Intern*

**March 2021 – June 2021**

*Lille, France (Remote)*

- Worked with the highest ranked research institute in France on a problem of suicide analysis in Lille.
- Used the socio-economic data collected from people who attempted suicide to predict whether they would attempt it again. It was also used to identify the factors which contribute to first time and repeated attempts.
- Our work determined the probability of suicide attempts in the next 6 months with an AUC Score of 0.89. This work will be submitted to the local government in Lille and a paper will also be written.

### Alan Turing Institute

*Data Study Group Participant*

**June 2020 – August 2020**

*London, United Kingdom (Remote)*

- Completed the project - "Communicating High-Street Bakery Sales Predictions Using Counterfactual Explanations" presented by CatsAI
- Collaborated with a team of 11 doctoral researchers globally to build predictive models with explainable AI approaches.
- Successfully analysed two years of bakery sales and weather data from 5000 sites to build predictive models for the sales and provided counterfactual explanations. Our SOTA model was able to predict the sales with an R<sup>2</sup> Score of 0.71

### Indian School of Business

*Financial ML Intern*

**June 2020 – August 2020**

*Hyderabad, India*

- Worked on developing and automating financial trading strategies using seminal research papers
- Developed and deployed a machine learning tool for the Union Bank of India which allotted risk scores to customers based on past customer data which was able to bring down the bank's current default rate by 11%
- Conducted research in the field of financial machine learning to help write a paper which was accepted in The Financial Review

## Projects

### Data Storyteller Application | Python, Streamlit, Scikit-Learn

**Feb 2021**

- Application to automate the process of data analysis. It can identify patterns in the data, interpret results, and produce a contextual output story understandable to a business user.
- It is able to analyse data on behalf of users and perform machine learning, feature selection and model evaluation for the user.
- The application is created as a dashboard using Streamlit that generates smart feeds through natural language generation techniques.

### Stock Market Trend Predictor | Keras, Python, Jupyter Notebook

**September 2019**

- Used Recurrent Neural Networks and LSTM implementation to predict the trends of Alphabet Inc. closing stock prices.
- Used backpropagation and 60 day timesteps to predict the prices with a mean absolute error of 9.641.

- Built an application to display all the nearby stores with different products and their quantities. Designed in the time of the Covid-19 pandemic to prevent hoarding and follow social distancing.
- The user could view products, stores, quantities and the number of people who would be present in the store at a particular time. Local shopkeepers could also manage their inventory using the same application.
- Designed and developed the complete backend for the application using Django and Object Oriented Programming.

## Awards and Achievements

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- Team India, KPMG Ideation Challenge (2021) - **Represented Team India in the Global Finals** after being selected from among 12000 teams.
- India Finalist, Smart India Hackathon (2020)
- Intel AI Edge Scholar (2019)
- Semi-Finalist, Miranda House National Debate (2021)
- AI Crowd Blitz Hackathon - Rank 7/400 (2020)