

PRAKHAR RATHI

+91-9643485265 pr440@snu.edu.in [linkedin.com/in/prakhar-rathi](https://www.linkedin.com/in/prakhar-rathi) prakharrathi25.netlify.app

Education

Shiv Nadar University

B.Tech in Computer Science Engineering (Minor in Economics)

Aug. 2018 – May 2022

Greater Noida, Uttar Pradesh

Cumulative GPA: 9.16

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

Technical Skills

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

Developer Tools: STATA, Excel, Google Cloud Platform, \LaTeX , Streamlit

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

Core Competencies

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

American Express

Data Science Intern

January 2022 – June 2022

Gurugram, India

- Part of the Global Optimisation and Call Management (GOCM) team which serves both inbound and outbound calls from our members in the JAPA, EMEA and Americas markets, along with managing the customer support centres globally.
- Developed and deployed machine learning models to quantify the factors that affect the key metrics within the GOCM team. These models are able to forecast the metric outcomes with a mean average percentage error of 7%.
- Standardized the machine learning modelling and deployment practices within the GOCM to provide a roadmap for similar projects in the future, through extensive documentation and curated tutorials.

University of Warwick

Data Science for Social Good Research Fellow

June 2021 – August 2021

Warwick, United Kingdom (Remote)

- Worked on a project with the German Federal Ministry for Economic Affairs (BMWi) aimed at strengthening BMWi's forecasts by developing a forecasting model to predict economic development in Germany.
- Developed vector autoregression models to forecast quarterly unemployment rates at the county level in Germany using fine-grained data on the demographic, economic and sectoral structure of regions with an average error rate of 2.5%
- Collaborated with a diverse team of 4 researchers from Asia and Europe along with mentors from Alan Turing Institute, UK and Ludwig Maximilian University, Germany.

Inria, France

Research Intern

March 2021 – June 2021

Lille, France (Remote)

- Worked with the highest ranked research institute in France analyzing suicide rates in Lille for research to be submitted to the local government in Lille and a paper to be published discussing the model developed, which achieved an AUC score of 0.89.
- Used socio-economic data collected from people who attempted suicide to identify contributing factors to first time and repeat attempts and predict future attempts.

Alan Turing Institute

Data Study Group Participant

August 2020 – September 2020

London, United Kingdom (Remote)

- Collaborated with a team of 11 doctoral researchers globally to build predictive models with explainable AI approaches to predict bakery sales.
- Successfully analyzed two years of bakery sales and weather data from 5000 sites to predict sales and provided counterfactual explanations. Built a SOTA model that was able to predict the sales with an R2 Score of 0.71.

Indian School of Business

Financial ML Intern

June 2020 – August 2020

Hyderabad, India

- Established, automated and backtested financial trading strategies using seminal research papers.
- Developed and deployed an ML tool for the Union Bank of India that allotted risk scores to customers based on past customer data which was able to bring down the bank's current default rate by 11%.

Select Projects

Intellimart | *Python, Django, HTML, CSS, JavaScript*

May 2021

- Built a Django application to display all nearby stores, product catalog and stock-on-hand to prevent hoarding and breach of social distancing protocol for users and streamline inventory management for local shopkeepers.
- Designed in the time of the Covid-19 which allows the users to view the number of people present at a particular store as well as the quantity of items.

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

Feb 2021

- Automated analytical tool/dashboard using Streamlit to generate smart feeds through natural language generation techniques and identify patterns in data, interpret results, and apply ML to produce a contextual output story for business users.
- It is able to analyse data on behalf of users and perform machine learning, feature selection and model evaluation for the user.

Reddit Flair Predictor | *Python, Flask, Scikit-Learn, Keras, Beautiful Soup*

May 2020

- An end-to-end machine learning project where I performed data collection, data analysis, machine learning modelling and model deployment.
- Analysed Reddit data to predict which flair(category) a post would belong to by submitting the URL of the post.
- Created a front-end using HTML, CSS and JS and the model was deployed using Flask and Docker.

Positions of Responsibility

Teaching Assistant

August 2021 – December 2021

Introduction to Computer Programming

Shiv Nadar University

- Taught and mentored 50 computer science students about programming concepts in C under the supervision of Prof. Harish Karnick.
- Conducted lab sessions, doubt classes and prepared study material on the concepts of C file system and pointers.

Awards and Achievements

- 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)