Piscataway, NJ

mayukh.sen13@gmail.com

SUMMARY

Data Science graduate student with advanced modelling and data analysis skills in R and Python. Keen interest in statistical modelling, data science & AI. Seeking entry-level jobs as data scientist to solve complex business problems.

EDUCATION

Rutgers University, New Brunswick, NJ

Master of Science in Data Science(Statistics)

5/2025

Kalyani Government Engineering College

B. Tech, Electronics and Communication, 9.13 on a scale of 10

2023

PROFESSIONAL EXPERIENCE

Rutgers University – New Brunswick, Thrive SSS

Graduate Tutor - Statistics

2023-present

- Provided statistics tutoring and academic support to college students in need of academic support. Assisted students in developing better study habits and better understanding of subject matter through one-on-one sessions.
- Researched and Designed workshops on probability distributions and statistical inference which enabled students to analytically approach statistical problems effectively and ultimately obtain stellar grades in related coursework.

M N Dastur & Co (P) Ltd

Data Engineering Intern

2023

- Reviewed documentations, designed heap usage visualizations for various tech modules to deliver actionable insights.
- Built interactive dashboards using Tableau to visualize metadata and insights for multiple energy-sector clients.

MinD Webs Ventures

Data Science Intern

2022

- Developed pipeline to extract Night-time data, captured by NASA Satellites, and Land Utility and Land Classification data from Google Earth Engine API to prepare structured datasets.
- Implemented ML algorithms on the datasets prepared to form a baseline for predicting economical features of a location using LULC-data and Night-time data of that location.

RESEARCH PROJECTS

Chicago Crime Dataset Time-Series Analysis

2023

- Performed a Time Series Forecast on the Chicago Crime Dataset from 2008 to 2023 of 22 columns and 4million rows.
- Performed preprocessing like drop NA values, unnecessary columns, conversion to suitable datatype and performed feature engineering. Obtained informative plots, heatmaps and heat matrices to analyze crime statistics of Chicago.
- Analyzed trends and seasonal components of the data. Performed Spatial analysis and identified the crime hotspots.
- Forecasted crimes per day in the hotspots. Employed ARIMA, SARIMA, TBATS, Holt-Winters, LTSM models for the time series analysis and forecasting. Seasonality was captured effectively by Holt-Winters, TBATS and LTSM.
- LTSM consisted of two layers and it produced the best forecasts on test data with minimal RMSE and MAPE.

Claim Cost Prediction for Auto Insurance Company (Kaggle)

2023

- Predicted Claim cost for Insurance company. Trained on dataset having 22k data entries and 22 features. Performed EDA using R to get better understanding of data, performing diagnostics, visualizations & feature Engineering.
- Achieved a high prediction power using our Light GBM model which produced better predictions than benchmark model
 Identification and Classification of Diabetic Retinopathy (Final Year Project)
- Achieved an impressive accuracy of 96.1% in the classification of diabetic retinopathy severity levels.
- Trained the model while utilizing Convolutional Neural Networks(CNN) like MobileNet2, EfficientNet on Training dataset to enhance model robustness and predictive power. Employed TensorFlow, and Keras for modelling.
- Demonstrated proficiency in data preprocessing, augmentation, and transfer learning techniques.
- Results deployed on website built on minimalistic UI and linked using Flask API and MongoDB

TECHNICAL AND OTHER SKILLS

HONORS AND ACTIVITIES

Core Domain Expertise: Data Visualizations, Exploratory Data Analysis, Machine Learning, Predictive Modelling, Data Preprocessing, Linear Modelling, Time Series Analysis, BERT(Language Model), Recurrent Neural Networks(RNN), Convolutional Neural Networks(CNN), Statistical Inference, Bayesian data mining, Pattern Discovery, numPy, matplotlib Computing and Programming: Python, R, SQL, MS Excel, TensorFlow, Keras, Pytorch, Power BI, Tableau.

Communication: Business Proficiency in English, Fluent in Bengali and Hindi, Public Speaking, Conflict Resolution

Bloomberg 2023 Global Trading Challenge (Rutgers University, New Brunswick)

2023

Participated with 3 of my classmates in the Bloomberg 2023 Global Trading Challenge, a university-based trading competition. Our algorithm was based on following business news and investing in large variety of options. Finished the competition with a profit of \$98,112, ranked globally in the top 5% in a participation pool of 2000+. Additionally also finished as the highest ranked team from our University.