Deepshikha Rathore

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Education

Sardar Vallabhbhai National Institute of Technology **Aug. 2019 – Present**
Master of Science in Mathematics *Surat, Gujarat*

Relevant Coursework

- Data Structures
- Machine Learning
- Data Science
- NLP
- Artificial Intelligence
- Probability & Statistics
- Mathematical Modelling
- Computer Networks

Problem Solving

- **HackerRank:** 5 star
- **LeetCode:** 1605 Rating
- **Certificate:** Problem Solving

Experience

Svnit Surat **May 2022 – July 2022**
Research Intern under Dr. Raj Kamal Maurya | *Report* *Surat*

- Study On Exploratory Data Analysis and Regression Techniques of Machine Learning
- Designed and developed the website using HTML, CSS which predicts Housing Prices in Indian Metropolitan Areas
- Worked on Decision Trees, Random Forest Tree, and Extreme Gradient Boosting Regression Method

Projects

Weather App | *HTML, CSS, JavaScript, API* | Website **July 2023**

- Tracks the user's location through HTML Geolocation API.
- Use API to access weather data to create a forecast, including temperature, humidity, clouds, and wind speed.

Sorting Algorithm Visualizer | *HTML, CSS, JavaScript* | Website **May 2023**

- Created a dynamic web application that visually demonstrates various sorting algorithms.
- Sorting Algorithms used for visulalization are insertion, selection, bubble, merge, and quick.

Movie Recommendation System | *Python, Jupyter Notebook* | Report **Dec. 2022**

- A recommendation system that recommends movies to watch based on movies entered by the user using machine learning techniques.
- Use countvectorizer to convert data of each movie into a vector and then use cosine similarity for comparison.

House Price Prediction on IKIGAI platform **Nov. 2022**

- Worked on a project utilizing decision trees, linear regression, and SVM to predict house prices in Bengaluru. Created an interactive dashboard on the IKIGAI platform, featuring area-wise prices and various interactive charts, as well as an end-to-end project that covers the entire process from data collection to deployment.

Numerical and Analytical Study on Vibrational Model | *MATLAB, LaTeX* | Report **Jan 2022 - May 2022**

- Study two analytical methods Adomian decomposition and Homotopy Perturbation method and a numerical method Adams method
- Solve linear and non-linear initial value problems of ODE using Adomian decomposition, Homotopy Perturbation and Adams method
- Compare errors by find approximate solutions obtained from ADM, Adams and HP methods of vibration model

Technical Skills

Languages: Python, C++, HTML/CSS, JavaScript, SQL
Developer Tools: VS Code, Jupyter Notebook
Certificate: SQL

Other

- **Rank 3** in the Department of Mathematics
- Selected for the KHO-KHO Inter NIT Tournament at NIT Rourkela, Orissa.
- Achieved **Jul LeetCoding Challenge** and **Aug LeetCoding Challenge** Badge.
- Article published in AMaThing 4.0 on "How did the Konsigsberg Bridge problem Change Mathematics?"