Aditya Agrawal

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Indian Institute of
Technology
Roorkee

Area of Interest

Competitive programming, Data structures and algorithms, Machine learning

Education

Year	Degree/Examination	Institution/Board	CGPA/Percentage
2022	Undergraduate	Indian Institute of Technology, Roorkee	8.019
2018	Intermediate (Class XII)	Sarvoday Paramount School, kota	87.60 %
2016	Matriculate (Class X)	Delhi Public School, Durg	10.000

Internships

Software Development Engineer | American Express   May 2022 - July 2022
- Worked with a journey monitoring team that monitors the end-to-end journey and health of a platform
- Tech stacks - Apache Kafka, Elastic Search, Kibana, Java
- Developer tools - IntelliJ IDEA, Java sdk

Machine learning developer | KeepFlying   January 2022 - March 2022
- Developed some APIs using the azure function. Used a local development server and thunder client for testing.
- Used OOPs concept in python to make classes and methods to develop various APIs. Developed several packages.
- Developed a function that simulates the EGTM data and also predicts the EGTM value for a particular number of steps.
- Developed a function for performing Weibull analysis. Used it to create a function for Weibull analysis on EGTM data.
- Developed a class that simulates the Weiner process using two different methods taking the initial point as a parameter.
- Developed a function to implement discrete and continuous Poisson distribution.
- Developed a simple Markov chain using Markov decision processes (MDP).

Machine Learning Intern | HONO.ai   June 2021 - July 2021
- Worked on employee churn predictive analysis dataset. The dataset consisted of various independent features of an individual including their education level, latest CTC, percentage salary hike, etc., and dependent feature attrition.
- Used pre-processing techniques like finding redundant features, outlier detection, etc. by various visualization analysis.
- Built data-driven classification models such as logistic regression, svc, random-forest classification etc. using parameters that were tuned using GridSeacrhCV. Used various matrices like confusion matrix, precision, recall, accuracy, and f1-score.

Data Science Intern | Valiance Solutions   October 2021 - December 2021
- Prepared the dataset for training. Developed a few algorithms for calculating various parameters like final units (sum of various parameters such as volumetric sale, KO strength etc.) consumed for a particular product in any particular year. Used these calculations to find if a particular product if launched in a particular country would be a success or not.
- Used various clustering algorithms to find the relation between countries based on their social and cultural similarities.

Projects

Breast Cancer Prediction using Machine Learning Techniques | IIT Roorkee   August 2020 - February 2021
- Used Neural Networks with different activation functions, Support Vector Machine (SVM), and a hybrid version of Principal Component Analysis (PCA) and Multilayer Perceptron to classify the malignant and benign tumor cells.
- Performed data preprocessing viz data visualization, feature engineering, and encoding categorical features on the dataset of 32 features and validated the performance of models by comparing them with the actual data.

Awards / Scholarships / Academic Achievements

- Global rank 13 in November Cook-off 2021
- Global Rank 114 in CodeChef December Long Challenge 2020 .
- Global rank 238 in Codeforces Round #798
- Global rank 286 in Codeforces Round #800

Skills

Computer languages C++ , Python, Java
Software Packages Sublime Text, Apache Kafka, ELK stack, Kibana, IntelliJ IDEA, Scikit Learn, CLion, Vscode
Languages Known English(SRW) , Hindi(SRW)

Positions of Responsibility & Extra Curriculars

Programmer | Competitive Programming   December 2020 - July 2022
- Active Member on various online judges including Codeforces and CodeChef.
- Codeforces id: iamadiagr1 (Expert, Max. Rating - 1800)
- CodeChef id: adiagr (5 star, Max. Rating - 2098)
- Leetcode id: aagrawal1