

### Contact

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Chennai, Tamil Nadu

## Skills

Website

Tools: Python, R, SQL, C, Command Line, Adobe Photoshop CC Exposure to: Keras, Scikit-learn, Numpy, Seaborn, Ggplot2, Pandas, Matplotlib, R-shiny, Stats.

## Online Courses

## Kaggle Courses:

Feature Engineering, Data Cleaning, Pandas, Data Visualisation, Introduction to SQL

#### Extras

## Treasure Hunt

Winner of various treasure hunts across several fests 2019 - 2022

Student Volunteer National Service Scheme 2019 - 2022

#### **Hobbies**

Reading Novels Discussing Philosophy Table Tennis

# Deepmalya Dutta

## **DATA SCIENCE STUDENT**

## Profile

Keenly interested in Deep Learning, Machine Learning, Statistical Analysis, Problem Solving and their applications in real-world scenarios. A fast learner with a healthy background in mathematics, computer science, and statistics who is eager to work on projects for companies and gain real-world experience.

## Education

Chennai Mathematical Institute

**Master of Science** 

Data Science, 2022 - Present CGPA: N/A
Key Courses - Deep Learning, Machine Learning, Data Structures,

Visualization, RDBMS, Python, Probability and Stats

St. Xavier's College, Kolkata

**Bachelor of Science** 

Mathematics, 2019 - 2022 CGPA: 8.2/10.00 Key Courses - Analysis, Linear Algebra, Probability, Statistics, Topology, Calculus

## **Projects**

# Human Action Recognition using CNN & Transfer Learning

December 2022 | Link

Tools used: Keras, Scikit-Learn, Python, Matplotlib, Numpy

In the project, I have performed image classification of human actions using CNNs. Initially, I created a few custom CNNs and fit the training data to the neural networks.

Next, I used transfer learning to increase the accuracy. I used EfficientNet-b0 as the starting point of our new model. I tuned the hyperparameters of this model a bit and added two more dense layers.

## Stock Prices Prediction using RNN & LSTM

December 2022 | Link

Tools used: Keras, Matplotlib, Pandas, Numpy, Seaborn, Python In this project, I have performed stock price prediction using RNNs. I tried to predict the future Volume Weighted Average Price for the stocks, Reliance, TCS, HDFC & Bajaj Auto. I have used simple RNN and LSTM to predict the stock price for the next one and 10 days, using the previous few days' stock prices. Finally, I tuned to hyperparameters and managed to achieve high accuracy on the test data.

## Financial Literacy of 18 to 35-year-olds

August 2022 - Ongoing | Link

Tools used: Scikit-Learn, Pandas, Numpy, Matplotlib, Python In this project, we are discussing the financial literacy of 18 to 35-year-olds across India. Our goal is to analyze the data collected through a survey with different statistical tools and measure their financial literacy. We used the INFE toolkit to score the answers and finally implemented a machine learning model, a combination of Logistic Regression, and Decision Trees and used Bagging Classifiers to predict and classify the user's financial literacy.

#### **Credit Card Customers**

Chennai Mathematical Institute | October 2022 - November 2022 | Link

Tools used: GGplot2, R-shiny, R

In this project, we explore the trend and usage of credit card users among different demographics. We use visualization techniques in R to find patterns in the credit card usage dataset. Following this, we attempt to find relations between Credit Card Usage, Utilization, Revolving Balance, and other variables. Finally, we developed an R-shiny dashboard to address the above-posed questions.

## **Deterministic Epidemic Modelling - HIV/AIDS**

St. Xavier's College, Kolkata | Sep 2021 - Dec 2021 | Link Tools used: Matplotlib, Python

In this paper, we have discussed SIS, SIR, SEIR, and SIRS model and analyzed the critical mechanics behind each model and how they correlate with real-world epidemics. Finally, we made estimates of potential outbreak casualties for new initial conditions and modern outbreak controls.

# Positions of Responsibility

- Placement Coordinator, Chennai Mathematical Institute, '24
- Organizing Committee, Analytica '21
   St. Xavier's College, Kolkata, Graphics Designing
- **PR Team**, Analytica '19, St. Xavier's College, Kolkata PR Representative