Roudranil Das

📍 *Kolkata, West Bengal, India* 🌐 [Portfolio Website](#)

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Education

2022 - 2024 (ongoing) Tamil Nadu, India	**M.Sc. Data Science** **Chennai Mathematical Institute**
2019 - 2022 West Bengal, India	**B.Sc. Mathematics (Honours)** **St. Xavier's College (Autonomous), Kolkata** *CGPA*: 8.46

Projects

Dec 2022
⬤ Link

Word Classification with PyTorch
Tools used: Python, PyTorch, torchaudio, pandas
− Analysed audio samples of the words "zero" to "nine"
− Trained a baseline CNN, a CRNN and a parallel CNN-RNN model with the CNN-RNN model achieving 84% accuracy on test set (+15% over CRNN) and F1-score of 84%.

Oct 2022 - Dec 2022
⬤ Link

Deforestation and Forest Conversion
Tools used: R, ggplot, tidyverse, R-Shiny | Chennai Mathematical Institute
− Created visualisations to better understand causes for deforestation. [Report]
− Built a dashboard web app with R Shiny for the above. [Dashboard]

Oct 2021 - May 2022
⬤ Link

Bayesian Analysis of Efficacy of the ChAdOx1 nCoV-19 (AZD1222) Vaccine
Tools used: Python, PyMC3, Matplotlib | St. Xavier's College, Kolkata
− Used Bayesian inference to compute the vaccine efficacy.
− Cross checked vaccine efficacy using standard and hierarchical Bayesian models with PyMC3.

ongoing
⬤ Link

Financial Literacy among 18-35 Year Olds
Tools used: Python, NumPy, pandas, Statsmodels, Matplotlib
− Collected responses to questions measuring financial literacy and scored them.
− Performed exploratory statistical analysis to determine factors of financial literacy

Technical Skills

Languages	Python, MySQL, R, C, LaTeX
Tools/Frameworks	Minitab, NumPy, Pandas, Matplotlib, Scikit-Learn, ggplot2, Git, PyTorch

Key Courses Taken

Postgraduate	Python and Data Structures, Visualisation with R, Probability and Statistics with R, RDBMS and SQL
Undergraduate	Linear algebra, Real analysis, Multivariable Calculus, Differential equations, Mathematical Statistics, R, C
Others	Data Analysis with R Prorgamming, Algorithms, Supervised ML, NLP

Awards and Achievements

2017	**Jagadish Bose National Science Talent Search Junior Scholarship Awardee**
2019	**Jagadish Bose National Science Talent Search Senior Scholarship Awardee**
2019	**INSPIRE Scholarship for Higher Education, Dept. of Science and Technology, Government of India**

Positions of Responsibility

CMI 2022	**Placement Representative** Serving as a representative on the CMI Placement Committee.
St. Xavier's College, Kolkata, 2021	**Director, Systems, Analytica 2021** Successfully served as the technical lead in the first online fest of the Department of Mathematics - Analytica 2021.

Extracurricular

2017 onwards	**Music** Have been playing the mandolin since 2017.