

## Academic Qualifications

Year	Degree/Certificate	Institute	CPI/%
2021-2023	M.Sc Statistics	Indian Institute of Technology, Kanpur	7.6/10
2018-2021	B.Sc Statistics	Loyola College, Chennai.	96.8%

## Work Experience

- **Data Science Analyst, Accenture Strategy and Consulting -Applied Intelligence.** *(Jul'23 onwards)*
  - Prepared a **financial database** for a potential Banking and Finance Company for it to be used as input for the predictive part of an internal widget.
  - Built a feedback loop using Python for a **GenAI-based General Ledger records tagging** project.
  - Set up the structured (snowflake) and unstructured (pdf files) database for an internal GenAI accelerator using python based preprocessing.
  - **Prompt Engineering** for a GenAI based-Co-Pilot using the GPT-4 API in Python, which included- Summary creation, Identifying Key ideas from text, creating graphs/pictures, fitting text into structured data.
  - As part of a client-project, **Data Analytics for Product Segmentation** for a Fortune 500 global branded food company (since December'23)
    - \* Extensive pre-processing using **GCP-BQ stored procedures and Dataiku flows**
    - \* ML-based segmentation combined with heuristic decision rules.

## Internships

- **Data Science Analyst Intern, Accenture-Applied Intelligence.** *(May'22- Jul'22)*
  - Built and published a Python Package called **fairness-audit**, that contains modules that upon receiving the raw data set, target variable and sensitive variable, automate the pre-processing, model-building and fairness evaluation tasks of an ML Pipeline.
  - Statistical testing of proportions across various metrics of model performance are carried out between the different levels of the sensitive class in order to evaluate fairness.
- **Data Science Intern, Chariot Beach Resorts, Mahabalipuram.** *(Mar'21- Apr'21)*
  - Carried out parametric tests on ratings-data to compare the performance of the resort in terms of **customer satisfaction** computed year-wise, season-wise and factor-wise.

## Achievements and Qualifications

- Passed the **CS1 (Core Statistics-1)** paper conducted by the **Institute of Actuaries, India.**
- Received the **Gold Medal and Scholarship**, for exceptional academic performance during the period 2018-2021.

## Key Projects

- **Bollinger-Band Clustering on BhavCopy (Self-Project)** *(July'22-present)*
  - This project aims to develop and back-test clustering-based trading strategies of appropriate holding-periods in order to achieve maximum returns. The BhavCopy for each day over the last 10 years have been collected and the corresponding values of bollinger bands have been computed.
  - Currently in the process of hypothesizing and back-testing such strategies. If successful, will extend to other technical indicators.
- **Clustering on NIFTY (For course: MTH552A)** *(April'22)*
  - This project was undertaken to show that the NIFTY 50 index can be trimmed using K-Means Clustering based on Financial Variables to produce superior returns (alpha) over the original index.
  - We use survivor-bias-free clustering-based back-testing to estimate the potential future alpha that could be generated.
- **Project entitled audit of Endoscopic Mucosal Resection of duodenal adenomas: Factors influencing success and reducing complications.** *(Dec'21-Jun'22)*  
**Guide: Dr Jayapal Ramesh**, Advanced Endoscopist, Royal Liverpool and Broadgreen University Hospitals NHS Trust, Honorary Senior Lecturer, University of Liverpool.

- Providing statistical help for the project by carrying out statistical tests of significance in order to confirm the dependence of the probability of a successful procedure on the various physiological and procedure-specific variables
- Help in writing the Statistics part of the manuscript.
- **Historical Fundamental Screener (Self-Project)** (May'21-Present)
  - The HFS is a stock research tool that lets the user filter stocks based on financial ratios, rank them by a certain ratio, select the size of your portfolio and see how the strategy would have performed over the last 10 years. The financial data used for this app was scraped using BeautifulSoup
  - Currently working on estimating and mitigating the inherent survivor bias.
- **Sports-Network-Optimization using Survey Analysis (For Course : 18UST6MS01)** (Apr'21).
  - The objective of this survey and its analysis was to put myself in the shoes of a **Sports Broadcasting Network** to decide on the events to cover over a period of one year, subject to the budget as well as tournament-related constraints in order to maximize the Revenue
  - Calculated probability-based custom popularity metrics and used **Linear Programming** to obtain the optimized results
- **App Downloads Prediction- Solution to the Hackathon held by MachineHack (Finished 1st)** (Aug'20)
  - Implemented **Machine Learning Algorithms** - CatBoost and LightGBM to foresee the success of an android application by predicting its popularity based on certain factors.
- **Analysis of the socio-economic factors affecting the spread of COVID 19 in India.** (May'20)  
**Guide: Dr N.P.Rajesh**, Head of the Centre for Radiation, Environmental Science and Technology, SSN College of Engineering, Chennai.
  - Implemented **Linear Regression** techniques like Ordinary/Weighted Least Squares, Lasso and Ridge, and analyzed the **statistical significance** of the various state-wise factors on the proportion of positive cases observed.
  - Included the interaction effects for 'time' and other relevant variables and came up with **day-wise projections** for the number of new COVID cases in Tamil Nadu.

## Technical Skills

- **Languages:** R, Python
- **Software:** SPSS, Microsoft-Excel
- **Skills:** Data Analysis, Stock Market- Backtesting, Web Scraping.