

Work Experience

- **Godrej Capital** | Analytics Manager (June'2022 - Present)
 - Operations Analytics: Identified opportunities to streamline loan processing through analysis of **turn-around times**.
 - Marketing Analytics: Working on **cross-selling** of complementary products to existing customers, **Clustered** customer demographics to **strategically place billboards**, resulting in increased brand visibility and engagement.
 - Predictive Analytics: **Predict sales** and **foreclosure** based on **time series** and **multivariate analysis**.
 - CX Analytics: Implemented **natural language processing** techniques to analyze and interpret customer feedback, leading to improved customer satisfaction and retention.
- **Arvind Limited** | Graduate Engineer Trainee (July'2017 - September'2018)
 - Managed production operations in the textile chemical processing department as shift-in-charge, ensuring efficiency and quality.

Academic Qualification

- **Indian Institute of Technology, Kanpur** | M.Tech, IME (2020 - 2022)
 - Learnt data science through coursework and gained proficiency through academic projects.
- **GCETT, Berhampore** | M.Tech, B.Tech Textile Engineering (2018 - 2020, 2013 - 2017)
 - Acquired well-rounded skillset in textile engineering and technology.









Internships

- **Bajaj Finance Limited** | Project Intern- Data Analytics (March'2022 - April'2022)
 - Designed dynamic banner generation system utilizing **deep learning object detection algorithms**
- **Harvesting India Private Limited** | Data Science Intern (May'2021 - July'2021)
 - Created a crop **recommendation system** for customers using **user-based** and **item-based filtering** techniques, resulting in personalized and relevant recommendations based on purchase history

Thesis Work

- **COVID Health Shock & Financial Resilience on Changes in Health Insurance Demand** (August'21 - June'22)
 - Collected primary data from 338 individuals and analyzing the data using **Structural Equation Modeling**
 - Results showed that individuals who experienced COVID and were financially resilient were more likely to buy health insurance

Academic Projects

- **Red Wine Quality Prediction** [Statistical modelling]  (August'21 - September'21)
 - Conducted **multivariate regression analysis** to predict red wine quality using 1599 data observations and verified statistical assumptions. Used **robust standard errors** to address **heteroskedasticity**, resulting in an **adjusted R2** of 0.3567.
- **Prediction of Employee Attrition** [Statistical modelling]  (September'21 - October'21)
 - Performed **Logistic Regression** to predict the employee attrition identifying key factors. The performance assessed by **confusion matrix** and **ROC curve**. The **accuracy**, **precision** and **recall** of the study are 0.77, 0.56 and 0.88 respectively.
- **Analysis of Economic Growth Factors** [Statistical modelling]  (October'21 - November'21)
 - Conducted **Panel Data Regression** analysis of GDP for 15 Asian countries using World Bank data, and verified that **fixed effect model** was more appropriate than the random effect model. **Time effects** were statistically significant with low impact.
- **Fetal Health Classification** [Classification]  (February'21 - March'21)
 - **Classified** fetal health using Cardiotocograms data and **logistic regression** with **L2 regularization** for **feature selection**. Implemented **decision tree classifier** and achieved Precision (0.83), Recall (0.86), F1-score (0.84), MCC score(0.76).
- **Analysis of Stand-up Comedian by NLP** [Natural Language Processing]  (March'21 - April'21)
 - Analyzed transcripts of famous comedians using **NLP** including preprocessing, **word cloud** generation, **topic modeling**, and **sentiment analysis**. Evaluated various metrics such as vocabulary, profanity, and words per minute.
- **Credit Card Fraud Detection Using HMM** [Stochastic Process]  (March'21 - May'21)
 - Built a **Hidden Markov Model** using simulated data and estimated transition and emission probabilities using the **Baum-Welch algorithm**. Predicted the likelihood of fraudulent transactions with a recall of 0.81 and F1 score of 0.67.
- **Mall Customer Segmentation** [Clustering]  (August'21)
 - **Clustered** customers for marketing and strategic planning using demographics and spending scores using **KMeans algorithm**.
- **Forecasting Monthly Champagne Sales** [Time Series Analysis]  (July'21)
 - Predicted monthly sales for the next two years using **time series** techniques and **decomposing** the data into its **trend**, **seasonality**, and **noise** components. Checked **stationarity** and applied **AR**, **ARIMA**, and **SARIMA** models.

Positions of Responsibility

- **Departmental Post Graduate Committee Student Nominee** , M.Tech IME IIT Kanpur (August'21 - July'22)
 - Facilitated resolution of academic concerns for students and provided support to the DPGC convener and PG secretary in managing departmental affairs
- **Class Representative**, M.Tech IME IIT Kanpur, B.Tech GCETT Berhampore (September'20 - July'22, August' 13 - June'17)
 - Represented my batch in various settings and coordinated team activities, including organizing and leading meetings

Technical Skills

- **Programming Languages and Tools:** Python, R, SQL, MS Excel, Tableau, Power BI, Orange
- **Skills:** Statistical Modeling, Operations Analytics, Financial Modeling, Machine Learning, Deep Learning, NLP

Achievements & Extra-Curricular Activities

- Secured an **All India Rank of 11** in **TF GATE 2020** with 99.30 percentile
- Achieved **Student of the Year** award in **2017** from Department of Textile Technology, GCETT Berhampore
- Badminton, Table Tennis, Swimming