Kishan Kumar | **200040076**
Civil Engineering | **B.Tech.**
Indian Institute of Technology Bombay | **Gender: Male**
DOB: 2/2/2002

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2024	
Intermediate	CBSE	PRAKRITIK SCHOOL	2019	90.40%
Matriculation	CBSE	B.D PUBLIC SCHOOL	2017	95.00%

Pursuing a Minor degree in the department of **Computer Science and Engineering**

Scholastic Achievements

- Awarded with certificate of completion in **(e-Yantra)** Competition organised by the **Ministry of Education India** *(2021)*
- Consolidated **99.01%** percentile in **JEE Advanced 2020** Examination, competing with 250,000 candidates *(2020)*
- Consolidated **98.8%** percentile in **JEE Main 2020** Examination, competing with over 1 million candidates *(2020)*

Key Projects

Stock Market Prediction Using ARIMA Model | Student Mentor *May '22 - July '22*
Web & Coding Club | Season of Code
- Conducted Exploratory Data Analysis and Data cleaning on **real-time** company stock data extracted from Yahoo finance
- Performed **Dickey Fuller Test** and did analysis on **ACF** and **PACF** plot to check the stationerity of the data
- Implemented **ARIMA** and **Seasonal**-ARIMA model to forecast future stock price on less amount of stock data

Credit Card Default Prediction | Self Project *Jun '22 - July '22*
American Express | Kaggle Competition
- Carried out feature analysis on data and plot Correlation Matrix by means of the **Pearson's coefficient** for all feature pairs
- Spotted **outliers** using **Boxplot** and scaled numerical features using **Standardization** and **MinMaxscaler**
- Executed **feature selection** and **PCA**(Principal Component Analysis) on dataset to reduce its dimension
- Implemented Oversampling technique **SMOTE** and Undersampling technique **Cluster centroids**
- Trained the dataset with different algorithm like **Logistic Regression**,Random forest,Decision tree,SVM
- **SVM+PCA+OS**(oversampling) outperformed all other algorithm with Test F1-score of **0.52** and of test accuracy of 0.78

Data Analysis of the Indian Premier League| Self Project *Dec '21 - Jan '22*
- Performed Exploratory Data Analysis on IPL dataset for obtaining best performing teams, luckiest teams, most popular venues, best players, etc. through visualization using **Seaborn**, Matplotlib, and **Plotly** in Python
- Engineered features like the current score and batsman-bowler statistics from the raw data and implemented Logistic Regression, **SVM**, and Decision Tree Classifiers for predicting match-winner with **accuracy** of over **95%**
- Implemented Predictive Data Analysis using Linear, **RF** and SVM Regressors to predict final scores of an innings

Credit Card Fraud Detection| Self Project *Mar '22 - Jun '22*
- Conducted Exploratory data analysis and plotted Correlation **HeatMap** to see the correlation between different features
- Used different anomaly detection algorithms **Isolation Forest,Local Outlier Factor** and SVM to train the data
- Obtained the best result using Isolation Forest with Accuracy score of **0.9966** and **F-score** close to 1

Customer Segmentation| Self Project *Mar '22 - Jun '22*
- Performed a real-life data analysis on the customers' data collected in a mall and gained some useful insights on its various features
- Used the **Elbow Plot** Method to get an optimum number of clusters using **Sklearn** library
- Used **K-Means Clustering Algorithm** to obtain the information regarding the target audience of the company

Case Study:How Does a Bike-Share Navigate Speedy Success? *May '22 -July '22*
***Objective**:To throw some light on how the two types of customers: annual members and casual riders, use Cyclistic bikeshare differently|Google Data Analytic Course| Coursera*
- Performed real world-task by analyzing 12 different datasets of a combined size 1GB with the help of R programming language
- Analyzed the data by following the 6 **phases** of Data Analytics process **Ask,Prepare,Process,Analyze,Share,Act**
- Recommended various marketing strategies and **published** the analysis report on the Public website **RPubs**

Finsearch | *F*inance Club *July '21 - Aug '21*
Understanding the Trading of currencies and commodities in the stock market
- Analyzed markets and stocks and **tracked currencies and commodity** fluctuations in the stock market
- Researched different formats of **Trading**, Market charts (Line, Bar, Candle stick) and **Forex terminologies**
- Presented **Stock Market Survey** based on factor affecting commodities and currencies in the market

Other Projects

Detecting Sentiments Through Tweets| Self Project *March '22*
- Fetched tweets data using **Twitter API** and cleaned and analyzed the data using various libraries like **WordCloud**
- Implemented various **NLP** based techniques like **Tokenization, Lemmatization and Vectorization**
- Checked **Polarity** and **Subjectivity** of tweet to analyze whether the sentiment of tweet is postive,negative or neutral

An Equal Weight S&P 500 Index Fund| Self Project | Algorithmic Trading *March '21 - June '21*
- Pulled out Market capitalization data of companies and price of each stock data using **IEX Cloud Sandbox API**
- Calculated how many share a person should buy according to his/her **portfolio** from each company of S&P 500 so that each company has **equal weight** and saved that dataset as an Excel file using **xlsxwriter** library

Quantitative Momentum Strategy| Self Project | Algorithmic Trading *March '22 - June '22*
- Pulled out months(1,3,6) changepercent and **year1ChangePercent** data of companies using IEX Cloud Sandbox API
- Figured out **HQM**(High Quality Momentum) score which is the average of all the above 4 price returns
- Conceptualized an **investing strategy** that selects the 50 stocks with the highest price momentum on the basis of HQM score
- Calculated recommended trades for an **equal-weight** portfolio of these 50 stocks which have the highest price momentum

Quantitative Value Strategy| Self Project | Algorithmic Trading *June '22 - July '22*
- Explored value investing and pulled out the composite basket of **valuation metrics** to build robust quantitative value strategies
- Build an investing strategy that selects the 50 stocks with the best value metrics based on the **average** valuation metrics
- Measured recommended trades for an equal-weight portfolio of these 50 stocks which have **highest** value metrics

Case Study:How Can a Wellness Technology Company Play It Smart? *May '22 -July '22*
***Objective**: To examine FitBit fitness tracker data to see how users interact with the FitBit app and identify trends for Bellabeat's marketing plan |Google Data Analytic Course| Coursera*
- Analyzed and cleaned data using various libraries like **janitor,tidyverse,dplyr** etc of R programming language
- Implemented **linear Model** to check the difference between the observed value and the estimated value
- Visualized **QQ** plot (quantile-quantile plot) to check the correlation and recommended various marketing strategies

Positions of Responsibility

Institute Secretary Technical Affairs | *Institute Technical Council, IIT Bombay* *May '22 - Present*
*Elected to a **23-member** team spearheading all the technical activities catering to over **10K+** student in the institute*
- Responsible for complete execution of events of ITC which collectively includes **ITSP, Technovation, Startup Talks** etc
- Achieved an **80% y-o-y increase** in number of projects in the Institute Technical Summer Projects:**600+**participation
- Coordinating with Hostel Council and planning to conduct a successful Tech GC with expected participation around **1K+**
- Conceptualized and executed ITA **Award ceremony**,an event specially for the passing out batch;**100+** participation

Department Academic Mentor | *Student Mentorship Program, IIT Bombay* *May '22 - Present*
*Selected as a part of **30-member** team based on ethical assessment, peer reviews, SOP's and a rigorous interview process*
- Co-mentoring **6** sophomores in academics and co-curriculars; involved in general upliftment of department
- Part of an **8**-member team responsible for organizing and managing **help sessions** of various department courses

Institute Technical Convener|*Krittika,IIT Bombay* *May '21 - April '22*
- Part of a **9**-member team, responsible for organizing several Institute and **Nation** wide Events
- Orchestrated a team of **40+** astronomy enthusiasts from across the country for the Krittika Summer Projects

Technical Skills

Programming Languages	C++ | Python| R | SQL | LaTeX| MATLAB | HTML | C
Softwares	Tableau | PowerBI | MySQL | RStudio | BigQuery | AutoCAD | Solidworks
Frameworks/Libraries	Seaborn | NumPy | Pandas | Scikit-Learn | Tidyverse | dplyr | Matplotlib | Ggplot

Key Courses Undertaken

- **Computer Science** : Operating System | Logic for Computer Science | Computer Programming and Utilization
- **Mathematics** : Linear Algebra | Differential Equations | Differential Equations II | Calculus I | Calculus II
- **Analytical** : Google Data Analytic Course* | IBM Data science* | **Process Data From Dirty to Clean*** | Analyze Data To Answer Questions* | Share Data Through Art Of Visualization* | **Data Analysis with R Programming***

*(*Online Courses)*

Extracurriculars

Mentorship	• Mentoring **12** students in **Algorithmic Trading** under a competition named Finsearch *(Present)* • Guided **6** students in Neural Network and Deep Learning under summer of science *(2022)* • Guided **150+** students in Remote Controlled Plane competition organised by Aero club *(2021)*
Sports	• Completed year-long Yoga and Meditation training under the **National** Sports Organization *(2021)* • Stood **1st** in volleyball competition in Plutofiesta Competition organised by H-9 sports council *(2022)*
Misc.	• Secured **1st** position among **150+** students in XLR8(obstacle manoeuvring bot) competition *(2021)*