# SAMYAK JAIN

Senior Undergraduate | Department of Civil Engineering

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# Academic Qualifications

Year	Degree/Certificate	Institute	CPI/%
2018 - Present	B.Tech. (Civil)	Indian Institute of Technology Kanpur	7.3/10.0
2018	Class XII (CBSE)	Aklank Public School, Kota	92.8%
2016	Class X (CBSE)	St. Paul's Sr Sec School, Kota	10.0/10.0

## Scholastic Achievements

- Secured an All India Rank 3632 in Joint Entrance Examination (JEE)-Advanced 2018 among 2.4 lakh candidates
- Secured an All India Rank 118 in Consortium of Engineering Colleges of Karnataka UGET 2018 among 1 lakh candidates

### Work Experience

Market Analyst Intern | Axxela Advisory Services LLP

Jun'21 - July'21

Objective	<ul> <li>Analyse and implement trading strategies in spreads &amp; outrights of milling wheat and rapeseed contracts</li> <li>Produce a research based on fundamentals of milling wheat by analysing the contracts data and prices</li> </ul>
Approach	<ul> <li>Executed day-to-day trading operations effectively using trend-line based analysis with 300+ trades</li> <li>Conducted price analysis using Candlestick patterns and technical indicators like Bollinger bands, SMA</li> <li>Performed extensive research on milling wheat markets by analysing its production cycles, seasonality</li> <li>Analysed the prices of Milling wheat contracts by correlating them with monthly stock-to-use ratio</li> </ul>
Result	<ul> <li>Obtained ≈60% accuracy in identifying the profit-generating entry &amp; exit points for different contracts</li> <li>Developed the report on Milling wheat contract containing estimated price and fundamental analysis</li> </ul>

# **Key Projects and Certifications**

Empirical Asset Pricing using Machine Learning | Prof Suman Saurabh, Department of IME, IIT Kanpur

- Drafted a sample ML model for INFOSYS company to predict the the movement of share price for next 30 days
- Generated variables used in ML model and did data cleaning and data analysing with the help of Pandas and NumPy
- Formalised .txt file with more than 1 lakh data entries and converted it to .csv format for data analysis

#### Credit Card Fraud Detection | Self Project

**Q** | June'21 - July'21

- Built a model to classify fraud transactions dealing with high class imbalanced dataset containing transactions data
- Performed various techniques like Random Undersampling, NearMiss algorithm and SMOTE to handle class imbalance
- Implemented various ML algorithm including Logistic Regression, SVM & decision tree to classify data
- Compared different models based on their **F1 score** and **Confusion matrix** and plotted their ROC and learning curves.

#### Portfolio Optimization using Markowitz Model | Coursera Project Network

July'21 - Aug'21

- Used Modern Portfolio Theory to analyze risk and return of different stocks and their relation with each other and the market
- Eliminated the specific risk to obtain the optimal weights for maximum Sharpe ratio and minimum variance portfolio
- Quantified risk-to-reward using Treynor Ratio and calculated Value at Risk for investment portfolio
- Analysed the individual portfolio using Efficient Frontier by considering the individual investor's risk tolerance

### Equity Market Analyst Certification | Finlatics: Enabling Insights

Mar'21 - May'21

- Developed and supervised a real time portfolio on **BSE 500 companies** for over a period of 2 months
- Applied Technical Analysis for Swing Trading to generate returns of over 17% in Indian Market with a capital of 2,00,000 Rs
- Used Open Interest Analysis and Volumes to find support and resistance for different shares in Nifty 100
- Identified the strength in different scripts using **Price action** and increased returns with help of **pyramiding**

#### Technical Skills

Languages: C, C++, Python, SQL, Matlab, HTML, Javascript

Tools: Github, MS-Office, AutoCad, LaTeX

Relevant Coursework *Online Courses						
	Data Structures and Algorithms	Derivatives -Options & Futures*	Microeconomics-I			
	Real Analysis and Multivariable Calculus	Applied Probability & Statistics	Introduction to Corporate Finance*			
	Introduction to Data Science*	Computational methods in Engineering	Fundamentals of Computing			

## Positions of Responsibility

Core Team Member | Games and Sports Council, IIT Kanpur

Mar'20 - Mar'21

- Spearheaded a team of 15 students to conduct year-long activities and events of GnS Council for the whole campus
- Assisted the council conduct All India Fitness Challenge among 23 IITs in which IIT Kanpur came First
- Conducted regular discussions and sessions on how to keep mental balance and physical strength during Lockdown

#### Marketing Secretary | E-Cell, IIT Kanpur

April'19 - Feb'20

- Negotiated with 100+ companies and convinced them to sponspor E-Summit 2019-20 for amount of more than 7 lakh INR.
- Coordinated with 10+ speakers, 500+ students and carried out smooth Conduction of E-Summit-2019