

Mohit Agrawal Chemical Engineering Indian Institute of Technology, Bombay 170020122 B.Tech. Gender: Male

DOB: 30-11-1999

Examination	University	Institute	Year CPI / %
Graduation	IIT Bombay	IIT Bombay	2021

### PROFESSIONAL EXPERIENCES

# **COMMODITY TRADER** | Axxela Advisory

[Apr '20 - Jun '20]

Executed trades on Intercontinental Exchange (ICE) by analyzing technical indicators and macroeconomic factors

- Generated profitable trades worth **USD 8.000** by conducting in-depth research in **Sugar** and **Cocoa** futures
- Employed multiple trading strategies including **Outrights**, **Spreads** and **Butterfly** to minimize potential loss
- Maintained risk-reward ratio of 0.5 by using technical indicators such as Moving Averages, Bollinger Bands, MACD
- Analysed seasonality of commodities through spread charts and utilized concepts of Relative value arbitrage

## **DATA ANALYST** | Neogrowth

[Dec '19 - Jan '20]

Worked in Data Analytics department and focused on predicting flow rates, and estimating loan renewal rate

	Approach	•	Automated <b>Roll Rate</b> calculation in <b>R</b> using Assets under management (AUM) data of over 5 years Used <b>Decision tree</b> to check correlation between collection visits data and delinquency buckets
Resul	Doculto	•	Forecasted flow rates with an accuracy of over 85% using time series models such as MA, ARIMA
	resuits	•	Identified 50% loan renewal rate by examining a database of 30k+ funded customers using Excel

### **MARKETING INTERN** | Early Steps

[Jul '20]

- Formulated a digital marketing strategy to acquire 100+ students in 2 months by researching the education sector
- Received a **Letter of Recommendation** from the **founder** for exemplary performance during the internship

### POSITIONS OF RESPONSIBILITY

**DEPARTMENT PLACEMENT COORDINATOR** | *Institute Placement Team, IIT Bombay* 

[Iul '20 – Present]

Elected unanimously to represent the interests of 120+ undergraduate students in the Institute Placement Committee

- Assisting in the placement of **1600+** students by working as a liaison between the placement office and students
- Strategized Plan of Action including 15+ preparatory activities to enhance placement preparation of students
- Responsible for resume verification of 120+ students and expertise company pitching for maximum recruitment

## **DESIGN SECRETARY** | Chemical Engineering Department, IIT Bombay

[Apr '18 – Mar '19]

One of 10 members of Department Council responsible for managing 15+ events | Budget: INR 0.45 Million

- Generated revenue of INR 80k by designing hoodie & prepared 15+ posters to increase event participation by 20%
- Publicised Student Industry Meet, promoting interaction of 500+ students with 14 industries like Reliance, BPCL
- Collaborated with editor and drafted **Chemical Gazette**, the chemical department magazine | Reach: **700+** students

## **KEY PROJECTS**

# MACHINE LEARNING | Stanford University, Coursera

[Jun '20 - Aug '20]

- Created multi-layered neural network with 95% accuracy using backward propagation to perform digit recognition
- Implemented **Support Vector Machine** to build a spam classifier for emails with **90%** accuracy after pre-processing
- Applied concept of collaborative filtering algorithm to build recommender system for movies based on user ratings

# **ACTIVITY COEFFICIENT MODELLING OF CHOLESTEROL** | Guide: Prof. Sandip Roy

[Jun '19 - Jul '19]

- Researched various ways of crystallization of a solid disperse phase and focused on the **anti-solvent approach**
- Developed MATLAB based codes for estimation of activity coefficients using thermodynamic methods like UNIFAC
   Analysed variation of activity coefficient of cholesterol with respect to different compositions in a ternary mixture
- **EQUITY PORTFOLIO MANAGEMENT** | NSE Academy & Alphabeta Incorporation

[Apr '20 - May '20]

- Studied Pairs Trading and Value Investing strategies and performance parameters like Alpha, Beta and MRAP
- Simulated over 8 years of market data and identified sectors giving better Sharpe Ratio using 4 different strategies

# \*\*EXTRA-CURRICULAR ACTIVITIES \*\*Python | C++ | R | SQL | MATLAB | Photoshop | Illustrator | LaTeX | MS Excel | DWSIM | OpenFOAM \*\*Developed a 2-player simulation of Chain Reaction game using vectors and recursions in C++ \*\*MOOC's: Algorithmic Toolbox | Data Structures | Modelling Risk and Realities | Corporate Finance \*\*Volunteered in SHE, an initiative by Techfest to promote Sanitary and Menstrual Health \*\*Dedicated 80 hours of volunteering work under National Service Scheme at IIT Bombay \*\*Assisted in Guinness World Record Solar Energy awareness workshop | Reach: 5000+ students \*\*Mentored 4 students in Summer of Science on Investing in Stock Market and Cryptography \*\*Case Study: Studied USP of Audi & suggested strategic reforms to build customer relationships \*\*Built a Stopwatch using encoder and decoder ICs to count up to 1 hr with the resolution of 1 sec \*\*Created a diversified portfolio by investing INR 40k+ in different asset classes with profit of 10%