



Ameya Parekh
Mathematics
Indian Institute of Technology, Bombay

19B090002
B.S.
Gender: Male
DOB: 19-07-2001

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2023	

SCHOLASTIC ACHIEVEMENTS

- Currently **Department Rank 3** in BS Mathematics (2021)
- Secured **All India Rank 1631** in **IIT JEE-Advanced** out of 224,000 candidates (2019)
- Achieved **99.65 percentile** in **JEE-Main** out of 1.1 million candidates (2019)
- Appeared for **Pre-RMO** and qualified for **RMO** (2017)
- Received **A*** (highest possible grade) in all **9** subjects in 10th **IGCSE** Board examination (2017)
- Secured **AIR 1** in **BSE International Finance Olympiad** (2016)
- Secured **2nd** place in **North East Asian Mathematics Competition (NEAMC)** in Shanghai (2016)
- Selected for a Summer Course in **Mathematical Logic** at the **Johns Hopkins University, Baltimore** (2015)

PROJECTS

Equity Portfolio Optimization

Summer 2021

Self Project

- Scraped **stock price data** of 4 leading tech firms of the last decade
- Performed a **Monte Carlo simulation** in Python to find the optimum portfolio by maximizing **Sharpe Ratio**
- Produced a **Markowitz Bullet** for the portfolio based on **Modern Portfolio Theory**

Mean Reversion Trading Strategy

Winter 2020

Self Project

- Read about various technical indicators like **Moving Averages, EWMA, Crossovers, Bollinger Bands, RSI**
- Screened securities with the condition that they follow a **sideways market**
- Coded a **mean reversion strategy** in Python to give **buy/sell signals** based on **technical indicators**
- **Backtested** the strategy over the last **5 years** and obtained **54.2%** aggregate returns

Time Series Forecasting of milk prices

Summer 2020

Online Course Project

- Performed **Augmented Dickey Fuller Test** on milk price data to check if it is **stationary**
- **Differenced** the time series to make it stationary by reducing **trend** and **seasonality**
- Applied the **ARIMA** model on the training set and tested it for future prices achieving an accuracy of **98.3%**

Touchless Doorbell

Summer 2020

Institute Technical Summer Project

Tinkerers' Lab, IIT Bombay

- Built a touchless doorbell using Arduino to help reduce the spread of COVID-19

TECHNICAL SKILLS

Programming Python, C++, Arduino, SQL
Software and Tools L^AT_EX, MS Office, AutoCAD, Numpy, Pandas, Matplotlib

POSITIONS OF RESPONSIBILITY

Organiser, Mood Indigo

Autumn 2019

Asia's largest college cultural festival

IIT Bombay

- Contacted over **50** companies to get sponsorship for various events as part of **marketing team** of Mood Indigo
- Handled sponsor representatives of various brands

EXTRACURRICULARS

- Completed a **Finance 101** bootcamp conducted by IIT Bombay and learnt various topics like **Personal Finance, Intro to Trading, Intro to Investing**, etc (2021)
- Active member of **IITB Aquatics team**, selected for annual sports fest **Aavhan** and **Inter-IIT** camp
- Bagged two silver medals in the **Inter Hostel Swimming Competition** organised by IIT Bombay (2019)
- Participated in various interschool MUNs like **ABMUN, BD Somani MUN** and **Cathedral MUN** (2014-16)
- Selected (among **10** contestants of **Harvard MUN**) to visit Mercedes Benz Centre of Excellence, Pune (2015)
- Won Area Level Finals of **Geeta Chanting Competition** - 2014, 2015, 2016, each year; conducted by Chinmaya Mission Mumbai (2014-16)
- Interned at the NGO **Magic Bus** in their Program Department (2016)
- Participated in a **cyclathon** by **Mpower** to raise awareness about mental health issues (2016)