



Dhairya Kantawala
Mathematics
Indian Institute of Technology Bombay

23B3321
B.S.
Gender: Male
DOB: 20/07/2005

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2027	9.58

Pursuing a Minor in Artificial Intelligence and Data Science from C-MInDS, IIT Bombay

SCHOLASTIC ACHIEVEMENTS

- Awarded an **AP Scholar Award** with **perfect scores** in Calculus BC, Physics C: Mechanics, and Chemistry ('22)
- Currently **3rd** in the Department of Mathematics at IIT Bombay, showcasing consistent academic excellence ('24)
- Secured All India Rank 1039 in JEE Mains 2023, being in the **top 0.1%** of **1 million+** candidates nationwide ('23)
- Qualified for Regional Round for **International Finance Olympiad (IFO)** conducted by **IIFM and ET** ('19)

PROFESSIONAL EXPERIENCE

No-Code Solution for Algorithmic Trading | *Intern Project: BreakoutAI, Germany (Jul '24 - Present)*
Germany's first AI-driven company specializing in automated algorithmic trading from user's custom strategies

- Designed and deployed end-to-end architecture for a no-code trading platform, utilising the **LangChain** library
- Utilised **vector embeddings** from **Pinecone**, to re-train a **LLM** generating algorithms from user prompt input
- Developed a website using **Mercury**, executed trading strategies in real time & visualized performance with graphs

KEY PROJECTS

Option Trading Strategies | *Summer of Science (SoS), MnP club, IIT Bombay (May '24 - Jul '24)*

- Researched option trading strategies using Option Volatility and Pricing by **Sheldon Natenberg** & online sources
- Gained expertise in derivative trading strategies, focusing on **Greeks** and metrics to assess risk and profitability

Time Series Analysis of Sales Data | *Seasons of Code (SoC), WnCC, IIT Bombay (May '24 - Jul '24)*

*Ranked my sales data time series prediction project in the **global top 500 participants on Kaggle***

- Developed expertise in time series analysis by including **S-ARIMA** and **LSTM**, to model complex sales trends
- Created a **XGBoost** forecasting model that achieved an impressive accuracy of **90.53%** in predicting sales trends

Interest Rate Hike Prediction Model | *FinSearch, Finance Club, IIT Bombay (Jun '24 - Aug '24)*

- Made a machine learning model to predict interest rate hikes by **scraping news data** and using sentiment analysis
- Developed an understanding of macroeconomic factors, achieving **98% accuracy** in forecasting interest rate hikes

Equity Research Competition | *Research project, Finance Club, IIT Bombay (Sep '24)*

- Did comprehensive stock analysis using macroeconomic factors, **SWOT analysis**, and key quantitative metrics
- Developed an investment thesis through assessments of the industry and company to predict stock price movements

POSITIONS OF RESPONSIBILITY

Institute Academic Coordinator | *Student Support Services, UGAC (Jun '24 - Present)*

*Selected among **4 out of 150+ applicants** via rigorous interviews, now addressing queries of **5000+** undergraduates*

- Organised **help sessions (TSCs)** for **15+** freshman and sophomore courses, witnessing an **attendance of 500+**
- Executed one week long orientation for **1500+ UG new entrants** along with **2000+** parents in an offline setting

Teaching Assistant MA105, Calculus | *Department of Mathematics (Aug '24 - Present)*

- Assisted **30+** first-year students in weekly **tutorial** sessions through problem solving and **doubt clarification**
- Provided logistical support to professor by evaluating over **100** students and organizing additional help sessions

TECHNICAL SKILLS

Programming	Python, C/C++, \LaTeX , Azure, Jupyter Notebook, AWS, Pinecone database, SQL
Libraries	TensorFlow, Keras, PyTorch, scikit-learn, NumPy, Pandas, Matplotlib, LangChain
Data Analysis	Excel, Tableau, Power BI, Data Cleaning, Statistical Analysis, Data Interpretation

EXTRACURRICULAR ACTIVITIES

- Attended Summer School at the **University of Oxford**, gaining global exposure in Business and Entrepreneurship
- Participated in the **British Origami Society Convention**, connecting with 100+ passionate origamists worldwide
- Attended **Pacific Coast Origami Convention (PCOC)** by **OrigamiUSA** to enhance skills and network globally
- Volunteered to teach **Mathematics** to underprivileged students under **Educational Outreach, NSS** for a year