



# Daksh Arora

Roll No.:220101033

B.Tech - Computer Science and Engineering

Indian Institute Of Technology, Guwahati

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Github | LinkedIn

## EDUCATION

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech. Major	Indian Institute of Technology, Guwahati	9.12 (Current)	2023-Present
Senior Secondary	CBSE Board	96.6%	2022
Secondary	CBSE Board	96.0%	2020

## EXPERIENCE

- **World Quant** Oct. 2023-present  
*Research Consultant*
  - Employed quantitative methodology to create systematic investment strategies, namely **Alphas**
  - Created **Uncorrelated Alphas** with high Sharpe, low Turnover and low Maximum Drawdown Ratio
  - Collected and analyzed large datasets to derive actionable insights for trading strategies

## PROJECTS

- **Pairs Trading and Cointegration Strategy** Oct. 2023  
*Finance and Economics Club, IIT Guwahati* Github Link
  - Used Python libraries to compute a pair of stocks having **maximum cointegration**
  - Implemented a **low-frequency** pairs trading strategy using cointegration for those two stocks
  - Strategy was implemented to profit from relative movement of the two stocks
  - Backtested the strategy for past three years
- **Portfolio Optimisation** Sept. 2023  
*Finance and Economics Club, IIT Guwahati* Github Link
  - Applied **Markowitz Model** over a portfolio of seven stocks
  - Calculated the **mean** and **skewness** of stocks with visual representation
  - Calculated Profit and Loss for a given capital through this model
- **Game Theory** Sept. 2023  
*Finance and Economics Club, IIT Guwahati* Github Link
  - Learned and implemented the concept of Game Theory
  - Created two games based on **Sealed Bid Auction**
  - Implemented the model using Python and analysed outputs of **randomized inputs**

## TECHNICAL SKILLS

- Programming:** Python, C/C++
- Data Visualisation:** Pandas, Numpy, Matplotlib, Seaborn
- Finance Tools:** YFinance
- Operating Systems:** Windows, Linux
- Others:** Git, Github, Jupyter Notebook, Google Colab

## KEY COURSES TAKEN

- Mathematics:** Linear Algebra, Basic Calculus, Probability and Random Processes\*
- Finance:** Financial Markets, Technical Analysis, Fundamental Analysis, Quantitative finance, Risk Management and Portfolio Optimisation
- Computer Science:** Discrete Maths\*, Data Structures and Algorithms\*
- Programming:** CP-BEGIN, Coding Club, IIT Guwahati

## POSITIONS OF RESPONSIBILITY

- **Associate**, Finance and Economics Club, IIT Guwahati Apr. 2023 - Present

## ACHIEVEMENTS

- **JEE Advanced 2022:** Secured AIR 499 among 0.15 million candidates
- **JEE Mains 2022:** Secured AIR 860 among 1.1 million candidates
- **KVPY SX 2021:** Secured AIR 1062 among 50,000 candidates
- **IOQC 2022:** Awarded State Topper Certificate by Homi Bhabha Center for Science Education
- **IOQM 2022:** Awarded Merit Certificate by Homi Bhabha Center for Science Education