



# Daksh Arora

Roll No.:220101033

B.Tech - Computer Science and Engineering

Indian Institute Of Technology, Guwahati

+91-6280095170

daksh.arora@iitg.ac.in

aroradaksh258@gmail.com

Github | LinkedIn

## EDUCATION

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech. Major	Indian Institute of Technology, Guwahati	9.04 (Current)	2022-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

- **WorldQuant Brain Quantitative Analysis Challenge** Dec. 2023  
*Inter IIT Tech Meet 12.0, IIT Madras* Github Link
  - Developed three unique alphas with distinct hypotheses, backtested on the US Equity Markets.
  - Implemented strategies focusing on **volume decay**, the **Size Effect** in smaller firms, and **call option implied volatility**
  - Validated strategies with OS testing (2021-2023), demonstrating predictive accuracy and market performance.
- **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**.
  - Developed a **low-frequency** pairs trading strategy utilizing cointegration principles.
  - Strategy was implemented to profit from **relative movement** of the two stocks.
  - Backtested the strategy for past three years to check the robustness of strategy.
- **Portfolio Optimisation** Sept. 2023  
*Finance and Economics Club, IIT Guwahati* Github Link
  - Employed **Markowitz Model** to optimize a portfolio with seven stocks, balancing risk and returns.
  - Analyzed **mean** and **skewness** of daily returns of stocks, with visual representation.
  - Quantified portfolio performance, evaluating profit and loss for a given capital using this Model.

## TECHNICAL SKILLS

- **Programming:** C/C++, Python, Verilog\*
- **Data Visualisation:** Pandas, Numpy, Matplotlib, Plotly, Seaborn
- **Finance Tools:** YFinance, TA-Lib
- **Operating Systems:** Windows, Linux
- **Others:** Git, Github, Jupyter Notebook, Google Colab, LaTeX\* \* Elementary proficiency

## KEY COURSES TAKEN

- **Computer Science:** Introduction to Computing, Data Structures and Algorithms, Digital Design, Discrete Maths
- **Finance:** Fundamental and Technical Analysis, Quantitative finance, Risk Management, Portfolio Optimisation
- **Mathematics:** Linear Algebra, Basic Calculus, Probability and Random Processes, Number Theory

## POSITIONS OF RESPONSIBILITY

- **Associate**, Finance and Economics Club, IIT Guwahati Apr. 2023 - Present
- **Organiser**, Techniche, IIT Guwahati March. 2023 - Sept. 2023
- **Associate Executive**, Alcheringa, IIT Guwahati Jan. 2023 - Feb. 2023

## ACHIEVEMENTS

- **WorldQuant Inter IIT Tech Meet 12.0:** Secured **2nd Rank** in Online Round
- **Codeforces:** Rated **Specialist** with current rating **1438** | Handle: daksh\_arora
- **Codechef:** Rated **4 star** | Handle: binary\_dakes
- **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