



# Aryan Arya

Roll No.:220101018

B.Tech - Computer Science and Engineering

Indian Institute Of Technology, Guwahati

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Github

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## EDUCATION

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech. Major	Indian Institute of Technology, Guwahati	8.25 (Current)	2022-Present
Senior Secondary	CBSE Board	94.6%	2022
Secondary	CBSE Board	99.2%	2020

## EXPERIENCE

- World Quant LLC** Oct. 2023 - present  
*Research Consultant*
  - Made several Trading Strategies(alphas) on Top 3000 US and CHN stocks.

## PROJECTS

- Crypto Trading Strategy** Dec. 2023  
*Inter IIT Tech Meet 12.0, IIT Madras* Github
  - Devised an algorithmic trading strategy using historical data for the **BTC-USDT** market by utilising technical indicators like **RSI, VWAP, Aroon Indicator and Moving Averages**.
  - Implemented **risk-management** measures such as dynamic price-level **stoplosses** and time-based stops to mitigate position risk.
  - Generated trading signals and constructed a **backtesting** module to report and analyse metrics such as **Returns, Drawdown, Sharpe Ratio, Win Rate, Trade Duration, Transaction fees**, etc.
- Modern Portfolio Optimization using Markowitz Model** Oct. 2023  
*Personal Project, Finance and Economics Club* Github
  - Optimized portfolios with the **Markowitz Model** based on **Modern Portfolio Theory (MPT)**.
  - Conducted **Fundamental Analysis** to select five assets, identifying portfolios with a **high Sharpe ratio** and **minimal risk** for optimal performance.
- Quantitative Pairs Trading Strategy with Cointegration** Nov. 2023  
*Group Project, Finance and Economics Club* Github
  - Developed a sophisticated trading strategy incorporating **Cointegration, Z-score Analysis, and Spread Dynamics** for precise signal generation.
  - Optimized portfolio returns and mitigated risk through strategic **risk management**, employing **Take-Profit** Mechanisms, and fine-tuning **Position Sizing** strategies while monitoring key performance metrics.

## TECHNICAL SKILLS

- Programming:** C/C++, Python (numpy, pandas, matplotlib, seaborn), JavaScript
- Finance:** Fundamental Analysis, Quantitative Technical Analysis, Portfolio Optimization, Blockchain and Web3\*
- Web/App Technologies:** HTML, CSS, ReactJS, Node JS, MongoDB, ExpressJS, Kotlin\*
- Data Analytics:** Data mining, Service management dashboards, Analysis and design \* Elementary proficiency

## KEY COURSES TAKEN

- Mathematics:** Linear Algebra, Basic Calculus, Discrete Maths, Probability Theory, Number Theory
- Finance:** Fundamental Analysis, Quantitative Technical Analysis, Game Theory and Macroeconomics, Blockchain and Web3\*
- Computer Science:** Data Structures and Algorithms, Digital Design, Design and Analysis of Algorithms, CS101
- Machine Learning:** AI.Machine Learning course, IITG.ai Club, IIT Guwahati

## POSITIONS OF RESPONSIBILITY

- Vice President Office(VPO) Elite,SGC, IIT Guwahati** August 2023 - present
  - Contribution to the decisions made by the **Student Senate** and helped in organizing various Student Gymkhana Council Events.
- Branch Representative, CSE,CSEA, IIT Guwahati** May 2023 - present
  - Represented CSE branch during **Student Academic Board(SAB)** conferences and establish regular communication between students and professors.
  - Organized a number of events including various sports Tournament and Coding Contests.

## ACHIEVEMENTS

- Silver Medal, Inter IIT Tech Meet 12.0**,secured **2nd** position among **21** IIT's. 2023
- Joint Entrance Exam(Advance)**,secured **490** rank among **100,000** students 2022
- Joint Entrance Exam(Mains)**,secured **783** rank among **1,000,000** students 2022
- Senior Secondary CBSE Exam**,State Topper (MP)-secured **99.2%** 2020
- National Talent Search Exam(NTSE)**,Cleared Stage 2 2021
- Indian Olympiad Qualifier in Physics(IOQP)**, State Topper (MP)  
2021