



Ishita Saraswat

Roll No.: 210121027

B.Tech - Engineering Physics

Indian Institute Of Technology, Guwahati

+91-7979955074

ishita.iitg@gmail.com

i.saraswat@iitg.ac.in

Github | LinkedIn

EDUCATION

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech	Indian Institute of Technology, Guwahati	7.64 (Current)	2021-Present
Senior Secondary	CBSE Board	96.6%	2020
Secondary	CBSE Board	97.2%	2018

EXPERIENCE

- **AR Quants** June 2023 - Ongoing
Quantitative Developer Intern
 - Automated data acquisition by integrating **Breeze API** with **AWS Kinesis** for streamlined data transfer and storage.
 - Implemented trading strategies such as **pairs trading** to capitalize on mispricing opportunities in financial markets.
 - Utilized the **Markowitz model** and conducted **time series analysis** for portfolio optimization and identifying trends.

PROJECTS

- **Pathfinding Visualizer** February 2023
Self Project Website
 - Developed a **React.js** web application to visualize pathfinding algorithms (**Dijkstra's**, **A***, **Breadth-First Search** and **Depth-First Search**) and display the **time elapsed** for completion.
 - Implemented **interactive features** for node selection, wall addition, and animated the algorithm's progress.
- **Codify - Leetcode Search Engine** February 2023
Algozenith Hackathon Website
 - Created a website with **search functionality** to enter queries and used Selenium to scrape questions from LeetCode.
 - Implemented the **TF-IDF Algorithm** to generate the top 20 search results in descending order of relevancy based on the query. Tech-stack used: **HTML, CSS, Python, Flask, Selenium**
- **Mean Variance Optimization** Nov. 2022
Project Mentor, Finance and Economics Club, IIT Guwahati Github
 - Utilized **Modern Portfolio Theory** and **Monte Carlo Simulations** for optimal weight allocation using **yfinance** data.
 - Generated metrics (**Expected Returns**, **Volatility**, **Sharpe Ratio**) and visualized the **efficient frontier** for assessment.
 - Mentored **100+ students** nationwide through the project, curated resources and provided doubt-clearing support.

TECHNICAL SKILLS

- **Programming:** C, C++, Python, MATLAB, JAVA*
- **Machine Learning and Data Analysis:** Numpy, Pandas, Matplotlib, MS Excel, yFinance, OpenCV*
- **Web Development Tools:** HTML, CSS, Javascript, Flask, React.js, Node.js*, Github * Elementary proficiency

KEY COURSES TAKEN

- **Computer Science:** Introduction to Computing, Computational Physics, Data Structures and Algorithms
- **Mathematics:** Introductory Mathematical Economics, Linear Algebra, Multivariable Calculus, Real Analysis
- **Physics:** Mathematical Physics, Semiconductor Devices, Signals and Systems, Quantum Mechanics

POSITIONS OF RESPONSIBILITY

- **Technical Secretary**, Disang Girls' Hostel April 2023 - Ongoing
 - Proactively managing and enhancing technical facilities for a **650+ boarder** hostel.
- **Project Head**, Antahsagari, 4i Labs April 2023 - Ongoing
 - Leading and managing a **team of 100+ students** across 3 modules- **Image Processing, Design and Control**.
- **Core Team Member**, Finance and Economics Club March 2023 - Ongoing
 - Organized and conducted various workshops and events to improve financial literacy of the campus.

ACHIEVEMENTS

- Awarded the **Grace Hopper Celebration Scholarship 2023** by AnitaB.org to attend the world's largest conference for women in computing.
- **4th Position** in Asian Parliamentary Debate at Manthan 2023, the Inter-Hostel Cultural Competition.
- **Finalist** in EnCode 2023, a national hackathon with over **300 participating teams**.
- Secured a rank among the **top 1.2%** of the 0.94 million candidates across India who appeared for JEE 2021.

EXTRA-CURRICULAR

- **Team Lead:** Kriti, the Inter-Hostel Technical Competition of IIT Guwahati Feb. 2023
- **Speaker and Organizer:** Python for Finance Workshop - attended by a 100+ audience Oct. 2022
- **Participant:** Engineers Conclave, Inter IIT Tech Meet 11.0 Feb. 2023
- **Organizer:** Arthashastra, a Portfolio Optimization Workshop during Techniche 2022 Sept. 2022
- **Member:** Debating Society, IIT Guwahati August 2022 - Present