



Aditya Gupta

Roll No.:210123080

B.Tech - Mathematics and Computing

Minor in Data Science and Artificial Intelligence

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EDUCATION

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech. Major	Indian Institute of Technology, Guwahati	8.48 (Current)	2021-Present
B.Tech. Minor	Indian Institute of Technology, Guwahati	8.75 (Current)	2022-Present
Senior Secondary	CBSE Board	95.6%	2021
Secondary	CBSE Board	96.2%	2019

EXPERIENCE

- **Amazon** May 2024 - Jul. 2024
Software Development Intern in the **S3P Pricing** team Bengaluru, India
 - Writing Integration Tests for **Prism Sapphire** package which required verification of **AWS Kinesis** records from **DynamoDb** and **OpenSearch**. Using Parallelisation strategies was able to reduce the test execution time to one-third of its previous value
 - Added **retry** mechanism for **NIB Lambda** involving usage of **SQS** and **Kinesis**. Worked with **IAM Roles** and **Policies** while accessing cross account resources. Used **Dagger** as a dependency injection framework

PROJECTS

- **Real Time Chat (Group Project)** Jun.2023 - Jul.2023
Coding Club, IIT GUWAHATI Github | Website
 - Developed a real time chat application enabling login, signup using **JWT authentication**
 - implemented personal and group chatting functionality using **Node.js**, **expressJS** and **socket.io**.
 - Used **mongoDB** for storing user information along with chats between users and used **React** and **Tailwind** for frontend to ensure multiple-device compatibility.
- **Stock Price Simulator** Jan.2023 - Feb.2023
Finance and Economics Club, IIT GUWAHATI Github
 - Developed a Stock price simulator using **Django** as backend framework which creates random walks based upon the probability distribution evaluated with the help of historical data fetched with the help of **yfinance** API.
 - Generated the random walks with the Help of **Monte Carlo Simulations** to simulate possible future stock prices. Visualised this data with the help of **Matplotlib** and **Seaborn**.

TECHNICAL SKILLS

- **Programming:** C/C++, Java, Python, Javascript* and TypeScript*
- **AWS:** Lambda Functions, Kinesis, DynamoDB, OpenSearch, SQS, S3, VPC, CloudWatch, IAM Roles, Principals, Groups and Policies
- **Web Development:** React, NodeJS, Django, Tailwind, Bootstrap, HTML and CSS
- **Database Management:** DynamoDB ,MySQL, MongoDB
- **Tools and Miscellaneous:** Git, Numpy, Pandas, Matplotlib, Seaborn*, expressJS , socket.io*
- **Operating Systems:** Windows, Mac, Linux* * Elementary proficiency

KEY COURSES TAKEN

- **Computer Science:** Data Structures (+Lab), Design and Analysis of Algorithm, Operating Systems (+Lab), Database Management Systems (+Lab), Computer Networks (+Lab), Digital design, Computer Organisation and Architecture, Introduction to Computing (+Lab)
- **Mathematics:** Probability Theory and Random Processes, Monte Carlo Simulations, Statistical Inference and Multivariate Analysis, Network Science, Theory of Computation, Optimisation, Linear Algebra and Basic Calculus
- **Data Science and Artificial Intelligence:** Deep Learning, Machine Learning, Artificial Intelligence, Mathematical Foundations of data science
- **Finance:** Financial Engineering I (+Lab), Financial Engineering II, Stochastic Calculus for Finance
- **MOOCs:** Supervised Machine Learning by deeplearning.ai, Cloud Computing Concepts by University of Illinois

ACHIEVEMENTS

- **AIR 1691**, in JEE ADVANCED among 1,40,000+ candidates. 2021
- **AIR 788**, in JEE MAINS among 1 million+ candidates. 2021
- **Qualified for INMO-2020**, from Delhi region being among top 30 participants in RMO-2019. 2020
- **KVPY fellow**, secured All India Rank of 1366 in the prestigious exam conducted by IISc Bangalore. 2021
- **JSTSE scholar**, by securing an all state rank of 20. 2018
- **Competitive Programming:** Achieved a maximum rating of 1378 on Codeforces and 1735 on codechef
- **Global Rank 77**, Codechef Starters 58 and **Global Rank 121**, Codechef september long challenge. 2022
- **Branch Change**, Promoted to **Mathematics Department** for **academic excellence** in 1st year of undergrad. 2022