

MOHAMMAD ISLAM

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EDUCATION

Cornell University, College of Engineering

Expected 2025

BS in Computer Science, Operations Research and Information Engineering

Relevant Coursework: Functional Programming, Machine Learning, Data Structures, Object Oriented Programming, Tools for OR-Data Science-ML, Computing using Python, Discrete Mathematics, Statistics, Linear Algebra

SKILLS

Technical Skills	Java, Python, OCaml, C++, HTML/CSS, SQL, NumPy, Pandas, PyTorch, Matplotlib, Git
Soft Skills	Object-Oriented Design, Data Structures, Test-Driven Development, Software Development
	Lean Six Sigma, Process Improvement, Communication, Collaboration, Problem-Solving

EXPERIENCE

Logistics Development Intern

Jun 2022 - Aug 2022

Novartis AG

East Hanover, NJ

- Increased transparency of logging qualification assessments and red flags for over 150 vendors by developing Java data structures such as nested lists, decreasing time needed for business continuity decisions
- Used JavaScript and VBA to implement automated data infrastructure for governance plans that require yearly revisions. Imported this onto company SharePoint as an open-source data structure for others to revise
- Improved data processing speeds by 30% by collaborating with department data scientist to engineer a dashboard of vendor metrics such as risk assessments, balance sheet numbers, and compliance rates

Course Developer

Mar 2022 - Aug 2022

Juni Learning

Remote

- Developed an online web-based calculus course using JavaScript embedded into SharePoint
- Created a course sequence with scope documents that included outcomes and objectives for each session
- Met with a mentor on a timely basis to review progress and make revisions on my implementation

Product Manager

Dec 2019 - Aug 2021

MangoCopped eCommerce

New York, NY

- As Product Manager, I oversaw our core sale strategies, marketing, purchase budget, and funds
- Designed a python script to efficiently manage 250+ SKUs of inventory while generating sales on eBay, Goat, and StockX
- Calculated 120% average monthly ROI using Python NumPy and cost benefit analysis with 96% positive feedback

PROJECTS

Automated Commodity Trading Algorithm Implemented an algorithm using PineScript following commodity channel index numbers in a fifteen-minute period of a stock chart to indicate entry and exit points. Back-testing resulted in greater percentages of winning trades vs losing trades

Shortest-Path Algorithm Simulation Collaborated with a partner to implement an optimal breadth-first Dijkstra's algorithm in Java using heaps, priority queues, and HashMaps to maximize game score in any given map with constrained edge weights and limited game steps, tested with JUnit

Breaking The 8.91% Building a Java source program that uses a NASDAQ data library for stock prices in the last five years to determine if a portfolio investing long term in random tickers can beat the average S&P500 return rate of 8.91% since Bloomberg/Fidelity surveys found forgotten portfolios to yield largest return percentages