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, Computer Systems, Data Structures, Object Oriented Programming, Optimization, Tools for OR-Data Science-ML, Managerial Accounting, Python Computing

SKILLS

Languages Java, Python, JavaScript, OCaml, C++, HTML/CSS, Swift, SQL
Technologies React, Node.js, MongoDB, AWS, MySQL, Tableau, NumPy, PyTorch, Pandas, Git, Bash

EXPERIENCE

Machine Learning Research Assistant April 2023 - Present
Cornell Tech *New York, NY*

- Scraped web data for 45+ Apple products, collecting carbon emission details over the past 5 years, and created a comprehensive dataset for analysis.
- Enhanced and expanded on the existing architectural carbon model proposed by Udit Gupta, developing and optimizing a linear regression model using PyTorch to accurately predict carbon emissions of different processors and hardware components in Apple products.
- Collaborated with the team to optimize the model's accuracy, documented the process, and communicated findings for informed decision-making on sustainable product designs.

Software Engineer Intern May 2023 - Aug 2023
Berkeley Pharma Tech *Remote*

- Resolved and addressed critical website bugs, resulting in an 80% reduction in user-reported issues and enhancing overall application performance.
- Collaborated with a partner to develop the frontend of NFT minting site using React.js. Successfully integrated Metamask into the web3 application using hardhat node, leading to a 150% increase in user adoption to facilitate secure transaction functionality.
- Engineered royalty redirection system for NFT trades, driving revenue generation of top $180,000 and 10% royalties, contributing to substantial business growth.

Logistics Development Intern Jun 2022 - Aug 2022
Novartis AG *East Hanover, NJ*

- Increased transparency of logging qualification assessments and red flags for 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.
- 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

PROJECTS

J.A.M.E. Street Developed a high-performance brokerage simulation application using OCaml and Unix shell scripting. Integrated polygon.io API to ensure accurate real-time stock data, resulting in a 99% data accuracy rate and enhancing the realism of the simulation with under 200ms response time.

Breaking 8.91% Developed robust Python program leveraging NumPy, PyTorch, Pandas, and Matplotlib to process and analyze stock price data from a MongoDB database, predicting the annual gain of random tickers. Inspired by Bloomberg and Fidelity surveys, project explores random ticker investments in comparison to S&P500 benchmark.