

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

Languages Java, Python, JavaScript, OCaml, C++, HTML/CSS, Swift, SQL

Technologies React, Node.js, MongoDB, AWS, MySQL, NumPy, PyTorch, Pandas, Matplotlib, 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 to accurately predict carbon emissions of different processors and hardware 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.
- Implemented a solution to ensure royalties from NFT trades were directed to our company, contributing to revenue generation and 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.