# **MUSKAAN MOINUDDIN**

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## **EDUCATION**

John Hopkins University

Baltimore, MD

M.S. in Artificial Intelligence

Pace University

New York, NY

B.S. in Computational Economics May 2025

GPA: 3.80 | Dean's List

Residential Assistant for Pace University Residential Life (RA)

August 2022 – May 2025

Awards: Highest Academic Excellence in Computational Economics, Magna Cum Laude

# **TECHNICAL SKILLS**

Student Research

Web Tech, Framing, and Programming Languages: JavaScript, Java, Python, C++, C#, Unity, Swift, SQL, Stata, R, React JS,

Angular, Figma, Flow Veo

Software: Alteryx, Power BI, Azure, Teammate+, SharePoint

**Development:** RESTful APIIs, microservices, cloud-native architecture (AWS exposure), data

workflows, full-stack project work

## **RELEVANT COURSEWORK**

Applied AI and Deep Learning | Econometrics | Economic Game Theory | Mathematical Foundations of Machine Learning | Quantitative Analysis & Forecasting | Intro to Parallel & Distributed Computing | Principles of Design & Digital Design

# **INTERNSHIP/ACADEMIC PROJECTS**

Sompo InternationalNew York, NYData Analyst Intern2023 - 2024

- Supported the Data Analytics team within the Internal Audit department, collaborating across the US and UK offices.
- Created an Alteryx workflow using mySQL to display Internal Auditing's Headcount hierarchy, tracking training hours and associated costs; visualized this data in Power BI.
- Developed a personalized dashboard for the Audit department, centralizing relevant metrics for user-based login and presented it to the head of the department for future development

# Research in Reinforcement Learning using ML Agents

New York, NY

2023

• Evaluated the impact of observation levels on training duration for reinforcement learning in Unity, optimizing an AI agent's task completion through machine learning.

- Designed an obstacle course and reward system to assess performance across varying observation and task complexities.
- Found that increased observation reduced episodes needed for task success but increased training duration. Future work focuses on developing dynamic environments and expanding sensor types for improved real-time adaptability.
- Implemented autonomous agent behaviors fine-tuning hyperparameters such as learning rate and reward functions.

## Biohaven/Columbia Medical Center

New York, NY 2023 – 2024

Clinical Research Team Member

- Contributed to data integrity and data operations of Spinal Muscular Atrophy (SMA) research trial to help increase muscle strength and function in children and adults from 4-21 years of age.
- BHV2000-301: A Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Efficacy and Safety of Taldefgrobep Alfa in Ambulatory and Non-Ambulatory Participants with Spinal Muscular Atrophy with Open-Label Extension (RESILIENT)

NNRoad Inc. Shanghai, China

Content Marketing Intern 2022

 Led a 5-month web redesign using WordPress, Elementor, and Spline for enhanced user interaction and layout optimization.

Applied front-end frameworks and responsive UI principles to drive SEO and engagement.

#### Comp/Econ Hackathon

2022

• Created visualizations in R using FRED data, assigned a report delineating economic activity over 15 years, goal was to compile visualizations that represent how key macroeconomic variable a have performed and projections for the upcoming years. Used U3 unemployment rate and employment-population ratio from 25-54. Interpreted data and communicating the data to a panel of the Economic Society members in practice for presenting data in all fields of businesses.

## Website Development and App Interface

2021-2025

• Developed a multi-page website in HTML/C++/JavaScript, XCode and designed a functional travel and food app UI/UX with a team, applying coding and design principles