

Matt McManus

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EDUCATION

Massachusetts Institute of Technology

Master of Engineering in Computer Science & Engineering; Concentration in Artificial Intelligence
Bachelor of Science in Computer Science and Mathematics

Cambridge, MA

Expected May 2024

Expected May 2023

- **Activities and Societies:** MIT Pokerbots, MIT Squash Team, Phi Kappa Theta Fraternity, MIT Bitcoin Club
- **Relevant Coursework:** Software Construction, Software Systems for Data Science, Fundamentals of Statistics, Graduate Machine Learning, Representation, Inference, and Reasoning in AI, Julia: Solving Real-World Problems with Computation

WORK EXPERIENCE

Bridgewater Associates

Incoming Investment Engineer

Westport, CT

June 2023 – Aug. 2023

Delphi Digital

Software Engineer

Cambridge, MA

May 2022 – Aug. 2022

- Created a risk framework for a new protocol being launched by Delphi Digital
- Analyzed various statistical and machine learning techniques to help create a more quantitative approach to assessing risk
- Researched ways to better assess different decentralized finance risk parameters

Performance Trust Capital Partners

Software Engineer

Chicago, IL

Jun. 2021 – Aug. 2021

- Developed Python application to parse thousands of financial lists from textual data sources
- Automatically mapped application to Bloomberg's API to identify new mortgage-backed securities
- Aggregated and cleaned a dataset of over 12,000 mortgages to identify new trading opportunities

Neomantra

Software Engineer

Greenwich, CT

Mar. 2020 – Feb. 2021

- Researched a trading strategy by analyzing the correlation between 10,000 intraday stock prices and closing cross
- Engineered a script to monitor stock splits, earning reports, and daily fees for different U.S. equities
- Built an automated report by querying fee data across the major U.S. Market Exchanges such as NYSE and NASDAQ

RESEARCH EXPERIENCE

MIT Computer Science and Artificial Intelligence Laboratory (CSAIL)

Research Assistant

Cambridge, MA

May. 2022 – Present

- Simulating agents capable of learning (via different ML techniques) and cooperating (via direct or implicit communication)
- Assisting in the development of the cyber security network simulator that we will use in our research

Massachusetts Institute of Technology

Research Assistant

Cambridge, MA

Feb. 2022 – Sept. 2022

- Analyzing recent developments in how Transparency and Portfolio Trading is transforming the Corporate bond market
- Performing traditional Quantitative methods and strategies from newly released data sources

Graduate Machine Learning (6.867)

Student

Cambridge, MA

Sept. 2021 – Dec. 2021

- Developed a novel algorithm for learning low-complexity solutions for interpolating deep neural networks via projection
- Designed, Implemented and Tested our projection algorithm which was able to outperform most current models

EXTRACURRICULAR EXPERIENCE

MIT Pokerbots

President, Head Instructor

Cambridge, MA

Sept. 2020 – Feb. 2023

- Led team of seven members to successfully run four-week computer poker class and competition for 250 MIT and Harvard undergrad/grad students. Managed operations and developed 2022 game engine.

Phi Kappa Theta Fraternity

President, Recruitment Chair

Cambridge, MA

Sept. 2019 – Feb. 2023

- Manage executive members and serve as a liaison between the fraternity, MIT administration and the City of Boston
- Coordinated a team of over 50 members to host nearly 30 events across MIT's campus and the greater Boston area

MIT HKN

Undergraduate Tutor

Cambridge, MA

Sept. 2019 – Feb. 2023

- Individually tutor over a dozen students in Intro to Computer Science and Introduction to Algorithms classes
- Assist students in debugging homework code while demonstrating proper principles of software engineering

MIT Squash Team

Member

Cambridge, MA

Sept. 2019 – Feb. 2023

- Achieved a National Team Ranking of 16th in the U.S. during the 2019 – 2020 season
- Ranked among the Top 10 Squash Players in the U.S. throughout junior career

SKILLS AND INTERESTS

- **Skills:** Python (XGBoost, scikit-learn, MLFlow) | Java | C++ | GoLang | SQL | R | Docker | Julia | Data Analysis | Research
- **Interests:** Basketball | Frisbee | Running | Artificial Intelligence | Automation | Photography | Cryptocurrency