# MIA SCARPATI

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## **EDUCATION**

**Northwestern University** 

Evanston, IL

B.S. in Computer Science and Statistics

June 2025

- Coursework: Linear Algebra, Probability & Statistics (Python & R), Fundamentals of Computer Programming II, Mathematical Foundations of Computer Science, Data Structures and Algorithms, Computer Systems
- Uncoming coursework: Machine Learning, Financial Engineering, Regression Analysis, Algorithm Design

• **GPA:** 3.72/4.00 | **Major GPA:** 3.74/4.00

**Lehigh University** 

Bethlehem, PA

B.S. Honors in IBE Financial Engineering, B.S. in Computer Science

Aug. 2021–May 2022

Choate Rosemary Hall High School Diploma

Wallingford, CT Sept. 2017–May 2021

## RELEVANT EXPERIENCE

Virtu Financial

New York, NY

Incoming Quantitative Trading Intern

June 2024

**Morgan Stanley** 

New York, NY

Summer Analyst – Institutional Securities Group, Counterparty Risk

June 2023–Aug. 2023

- Leveraged Python to analyze large datasets on margin calls over three years for the purpose of counterparty risk management across the firm's sales and trading business and presented findings to senior management.
- Worked closely with various technology teams to streamline the development of internal risk platforms.
- Analyzed and mitigated electronic trading risk associated with new algorithms, trades, and the trade plant.

Virtu Financial

New York, NY

Jan. 2023

Trading Analytics Wintern

- Participated in a highly selective one-week trading immersion experience with sixteen other college women.
- Attended lectures on trading, market technology, and statistics, and worked through related trading problems.
- Collaborated with three other interns to develop a futures market making strategy, utilizing Python to conduct data analysis and testing. Culminated in a 20-minute presentation to Virtu quantitative strategists and traders.

Project Olympus Evanston, IL

Software Developer

Oct. 2022–Present

- A founding member of Olympus, a social fitness app that transforms how weightlifters progress in the gym.
- Utilize React Native, Javascript, and Firebase to develop the frontend and backend of the Olympus iOS app, and Git to work fluidly with three other developers in alignment with the Agile software development methodology.

#### **ACTIVITIES & ACHIEVEMENTS**

# **Northwestern Capital Management**

Evanston, IL

VP of Quantitative Strategies

Oct. 2022-Present

• Founder of NCM's quantitative strategies branch, educating members in programming, quantitative methods, and creating and backtesting algorithmic trading strategies, culminating in an internal paper trading competition.

## **Midwest Trading Competition**

Chicago, IL

Algorithm Developer

Mar. 2023-Apr. 2023

- Competed in the annual Midwest Trading Competition hosted by UChicago, writing and deploying separate algorithms for three markets-based cases: futures market making, options trading, and portfolio management.
- Traded against 34 competitors on a simulated exchange, adjusting algorithms in response to live market data.
- Achieved second-best PnL with an 8.32% return for the portfolio management case by optimizing an objective function based on the covariance matrix of traded assets with adjustments for non-normally distributed returns.

# **SKILLS & INTERESTS**

**Technical Skills:** Programming (Python, C/C++, Java Javascript, React Native, R), Microsoft Office Suite, Photoshop **Languages:** English (native), Spanish (proficient)