# **Ahmed Assal**

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## **EDUCATION**

Yale University (GPA: 3.66/4.00)

New Haven, CT

B.A. Mathematics, B.A. Statistics and Data Science

May 2025

Honors: Questbridge Scholar, Yale STAR Scholar (Science, Tech, & Research)

# PROFESSIONAL EXPERIENCE

#### **Citadel Securities**

New York City, NY / Miami, Florida

Quantitative Trading Intern

June 2024 – Present

- Semi-Systematic Equities: Block Trading
  - Collated and enriched historical IPO and Follow-On Offering data using internal returns and prices data libraries. Built a GUI to better visualize and query the data.
  - Used Bin-Plots correlation analysis to find relationships and predictors of returns.
  - o Built a decision tree model that fit into the existing QR framework using a proprietary algorithm.
- Systematic Equity Options: Options Market Making
  - o Analyzed Target vs Shortfall PnL across single stock equity options, focusing specifically on tickers the team has been trading sub optimally due to latency impact.
  - Determined location, timing, and causes of losses after changes to their systematic strategies.

### Citigroup: Global Markets Division

New York City, NY

Quantitative Analysis Intern

June 2023 – August 2023

- Cross-Asset Trading Analysis
  - o Implemented Value at Risk algorithm (python) for newly formed cross-asset trading desk
  - o Determines causes of changes in VaR. Proposes hedges to revert portfolio to desired risk appetite
  - o Dynamically simulates and presents expected VaR to traders before they submit trades
- Mortgage Backed Securities (MBS) Analysis
  - o Identified new correlations to the conditional prepayment rate to support in updating the group's prepayment model in a post-COVID / inflationary environment

#### **Peak6 Investments**

Chicago, IL

Proprietary Trading Intern

May 2023

- Conducted volatility research, gaining a comprehensive understanding of market conditions and trends
- Pitched multiple option ideas to traders utilizing realized/implied volatility spread and fundamental analysis

#### **Bank of America: Trading Division**

New York City, NY

Trading Analyst Intern

*June* 2022 – *August* 2022

- Central Risk: Goal is to provide internal desks with liquidity and minimize the market impact of trades
  - o Built a function (q/kdb+) to determine the market impact of high-touch equity flow
  - O Data mined (python) CRB's historical flows and found a positive correlation between forward returns and trades from select industries (multi-family real-estate, telecom, airlines, & banks)
- Linear Rates: Pitched 2yr forward 3yr TIPS Breakeven to senior traders
  - o **Rationale**: Powell has expressed that 2yr inflation will revert to the Fed's target of 2%. Recent and historical data suggest such a reversion to be unlikely, resulting in a mispricing of the TIPS curve

## **TECHNICAL SKILLS**

**Languages:** Python, C, Racket, q/kdb+

Other: Linux/Unix, Jupyter, Git, Bloomberg Terminal, Financial Analysis (Fundamental & Statistical)

#### **EXTRACURRICULARS**

#### SEO Career

New York City, NY

Trading and Markets Track

July 2021 – Present

• Completed 50+ hours of training covering financial modeling, data sourcing, risk management, in addition to professional development customized for the fields of trading and public markets

#### **Yale Student Quantitative Research Group**

New Haven, CT

Analyst

September 2022 – Present

- Using computational and statistical techniques to conduct research on financial securities and opportunities
- Creating presentations/workshops to advance quantitative finance education within the Yale community

Interests: Neo-Classical Piano (2024 Wedding Performance), Intramural Basketball, Weightlifting, Making Syrup