

# XIAOLIN (DAPHNE) LIU

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## EDUCATION

### MASSACHUSETTS INSTITUTE OF TECHNOLOGY

*Master of Finance, Major in Financial Engineering*

Cambridge, MA

Expected Feb 2025

- GPA: 4.9 / 5.0
- Relevant Coursework: Statistical Analysis, Advanced Analytics for Financial Engineering, Nature Language Processing, Machine Learning, Quantitative Investment Management, Options and Futures, Time Series Analysis

### CHINESE UNIVERSITY OF HONG KONG

*BBA(Hons) in Finance, Minor in Statistics, 1st Class*

Hong Kong

Sept 2019 - May 2023

- GPA: 3.7 / 4.0 Major GPA: 3.9 / 4.0 (Top 5%)
- Honors: Dean's List, College Head's List, Top 3 team of JPM Asset & Wealth Management Challenge
- Relevant Coursework: Ordinary Differential Equations, Time Series, Deep Learning, Regression Analysis, Financial Data Science

## EXPERIENCE

### CAPSTONE INVESTMENT ADVISORS, LLC

New York, NY

*Quantitative Research Intern | Commodities Pod*

Jun 2024 - Aug 2024

- Designed customized multi-factor CTA strategies for 11 commodities futures by integrating positioning factors and macro factors; further enhanced by HMM regime identification, achieving an average Sharpe ratio of 1.5 across assets
- Developed an interactive Bloomberg BQNT dashboard to highlight key market indicators, including COT net managed money, open interest changes, and options skew, enhancing investment decision-making process
- Performed in-depth event studies on market phenomena to identify alpha signals, analyzing factors such as day-of-week effects, natural gas's seasonality, moving average crossovers, and open interest dynamics
- Collaborated on a cross-team intern project to develop innovative strategies for talent acquisition and retention

### ICARUS FUND LLC

New York, NY

*Quantitative Analyst Intern*

Jun 2023 - Aug 2023

- Constructed a dynamic investment universe by collecting monthly return of S&P 500 components from 2010 to 2023; applied ARIMA models and distribution plots to determine optimal lookback period
- Improved original momentum models by integrating Fama-French factors to isolate market effects and implemented LSTM-based return predictions, boosting Sharpe ratio from 0.70 to 1.05
- Created an innovative Fed Sentiment factor by fine-tuning Large Language Models via LoRA to analyze Fed speech, news, and announcements, classifying sentiment as hawkish, dovish, or neutral; achieved classification accuracy of 78%

### DYMON ASIA CAPITAL

Hong Kong

*Quantitative Portfolio Management Intern | Index Rebalance Pod*

Jun 2022 - Aug 2022

- Created 20+ automation projects for synthesizing event-driven strategies; web scraping alternative data including index composition changes, announced M&A deals, Altered Trading Method, and sovereign wealth funds' holding position updates
- Back-tested index composition change events for 2,000 China CSI indices and selected indices with highest Sharpe ratios
- Tracked daily short interest data for 15 major EU countries, built interactive visualizations to detect alpha ideas

## RESEARCH

### FIDELITY INVESTMENTS

Cambridge, MA

*MIT Sloan Joint Finance Lab*

Jan 2024 - Mar 2024

- Developed robust methodologies for estimating long-term expected market returns, facilitating strategic retirement planning
- Conducted comprehensive literature review and competitor analysis; evaluated various models, including rolling window geometric mean, weighted unbiased estimator, factor models and implied risk premium methodologies
- Employed building block approach to discern and analyze dynamic relationships between asset classes, observing notable reversals in relative risk premiums that provided critical insights for Financial Solutions team

## ADDITIONAL INFORMATION

- Technical Skills: Python, SQL, VBA, R, Tableau, Bloomberg, C, STATA
- Languages: Fluent in English, Mandarin, and Cantonese
- Interests: Photography, Billiards, Skiing, Jazz dancing, Piano (level 10), Traveling