

Haoyu (Peter) Lei

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EDUCATION

THE UNIVERSITY OF CHICAGO

Master of Science in Financial Mathematics

Chicago, IL

Expected December 2021

- Current Courses: Portfolio Theory & Risk Management, Python, Option Pricing

THE UNIVERSITY OF HONG KONG

Bachelor of Engineering in Computer Science

Hong Kong

July 2020

- Courses: Data Structures and Algorithms, Database Management Systems, Probability and Statistics, Differential Equations, Numerical Analysis, Econometrics, Empirical Asset Pricing, Fixed Income Securities, Derivatives
- Extracurricular: Project Leader for Beyond the Pivot – recruit and train volunteers, coordinate with government officials, and instruct primary and secondary students for a volunteer teaching program

THE UNIVERSITY OF CALIFORNIA, IRVINE

Visiting Student, Major in Computer Science

Irvine, CA

January 2018 – June 2018

- Courses: Design and Analysis of Algorithms, Machine Learning and Data Mining, Parallel and Distributed Computing, Multivariable Calculus, Linear Algebra

SKILLS

Computing: Python, R, SAS, SQL, C++, Jupyter, Java, Unix/Linux, L^AT_EX, MS Office

Database: Bloomberg, CRSP, Compustat, Datastream, I/B/E/S

Knowledge: Machine Learning, Regression Analysis, Software Development, Portfolio Analysis and Optimization

Other: CFA Level 2 Candidate

EXPERIENCE

KUBID RESEARCH

Summer Quantitative Researcher

Hong Kong

June 2019 – August 2019

- Wrote Python scripts to collect data from Bloomberg and SEC EDGAR for over 70 US equities; built SQL database
- Back-tested and improved market-neutral, statistical arbitrage strategies in R with collected data; identified 10+ liquid stocks generating robust and consistent alphas
- Automated and documented data collection and back-testing processes to facilitate future intern onboarding

JPMORGAN CHASE

Summer Technology Analyst, Equity Derivatives Group

Hong Kong

June 2018 – August 2018

- Designed logging message patterns and implemented logging message aggregation in Spring Boot microservices
- Researched, presented to teammates, and documented the use of Splunk to search for logging messages
- Processed over 10,000 request-for-quote emails using VBA

RESEARCH

THE UNIVERSITY OF HONG KONG

Research Assistant, Faculty of Business and Economics

Hong Kong

September 2019 – August 2020

- Improved parametric portfolio policies with variable selection methods
- Replicated 7 momentum factor-mimicking portfolio returns in SAS with portfolio sorts and Fama-MacBeth regressions; factors include standardized unexpected earnings, cumulative abnormal returns around earnings announcements, and revisions in analysts' earnings forecasts

A REVIEW OF MEAN-VARIANCE OPTIMIZATION METHODS ([Paper link](#))

February 2020 – May 2020

- Reviewed and back-tested 6 portfolio mean-variance optimization methods, including sample covariance matrix, graphical lasso, and industry factor model across Fama-French portfolio and individual stock datasets
- Evaluated portfolio out-of-sample performance with 5 metrics, including standard deviation and Sharpe ratio

ADDITIONAL INFORMATION

Languages: English (fluent), Mandarin (native), Cantonese (native), French (elementary)

Interests: Volunteer work, jogging, swimming, reading, singing