Zilin (Kaitlin) Yan

(+86)159-0190-6648 | ziliny@princeton.edu

Education

Princeton University, Bendheim Center for Finance — **Princeton, NJ**
Master's Degree in Financial Mathematics — *Aug 2020 – May 2022 (Expected)*

- Anticipated Coursework: Asset Pricing (Pricing Models, Derivatives, Stochastic Calculus), Financial Econometrics, Statistical Analysis of Financial Data, Corporate Finance and Accounting. Pursuing Certificate in Machine Learning

Tsinghua University, School of Economics and Management, Center for Statistical Science — **Beijing, China**
Bachelor's Degree in Economics and Finance, with a Minor in Statistics — *Aug 2016 – June 2020*

- GPA: 3.96/4.0; Rank: 1/159; Minor GPA: 3.95/4.0; GRE: V165+Q170+AW5.0
- Honors: Beijing & Tsinghua Outstanding Graduate Award (1%); National Scholarship (1%)
- Coursework: Intermediate Financial Theory, Fixed Income Analysis, Econometrics, Investments, Real Analysis, Time Series Analysis, Statistical Inference, Statistical Computing, Stochastic Calculus in Finance, Introduction to AI, C++, Data Structure

University of California, Berkeley, Department of Economics — **Berkeley, CA**
Exchange Student — *Aug 2018 – Dec 2018*

- GPA: 4.0 / 4.0; Obtained A+ in graduate courses Statistics of Causal Inference and Data Analysis with Python

Professional Experience

Singapore Hedge Fund — **Shanghai, China**
Quantitative Research Intern — *June 2020 – Aug 2020*

- Researched high-frequency trading signals for four futures contracts in the Chinese market with tick data
- Studied market microstructure signals and relative value strategy and combined them with tree-based machine learning

China International Capital Corporation Ltd. (CICC) — **Beijing, China**
Quantitative Analysis Intern, Wealth Service Center — *Sep 2019 – Dec 2019*

- Responsible for database management and performance analysis of quantitative funds in China in support of FOF design
- Tracked performance of 200+ funds via VBA, SQL, and Python and improved the efficiency of the code to save 50% of time
- Conducted performance attribution analysis through Brinson models with Python

Wizard Quant Capital Management — **Zhuhai, China**
High-Frequency Quantitative Research Intern — *July 2019 – Aug 2019*

- Developed HFT strategy in crude futures market and constructed 30+ alpha factors based on technical indicators
- Applied Lowess regression and multivariate linear regression to 1.2 million+ data points to evaluate factor performance
- Studied the performance machine learning algorithm SVR in capturing non-linearity of factors with 2000+-line Python code
- Customized kernel function for trade data to improve performance. Achieved out-sample R2 10% higher than linear model

XY Investments — **Shanghai, China**
Quantitative Strategy Research Intern — *Dec 2018 – Feb 2019*

- Conducted research in low-frequency strategy with fundamental alpha regarding analysts' consensus expectation
- Discovered anomalies in analysts' reporting behavior and developed strategy to eliminate noise introduced
- Solved a data sanity problem to enhance stability. Improved 5 day-IR from 2.4 to 3.5 and 5 day-IC from 7.9 to 14.4
- Developed NLP and Latent Semantic Analysis with Python to deal with text-based information from annual reports

Projects and Research Experience

Co-author Autonomous Household Energy Management Using Deep Reinforcement Learning — *Aug 2018 – May 2019*

- Published in IEEE ICE/ITMC 2019 under guidance of Berkeley PostDoc at IEOR Department
- Applied DQN and DPG to optimize electricity consumption among large groups of devices under constraints of user habits
- Improved DQN algorithm with poor scalability by employing transfer learning
- Responsible for implementing the DQN optimization with Python and tuning parameters for the DQN algorithm

Meritorious Winner in 2018 MCM/ ICM Mathematical Contest in Modeling — *Feb 2018*

- Performed analysis of US renewable energy consumption patterns and put forward policy advice
- Applied PCA to compress 100+ potential variables and applied LASSO to select features to explain the cross-sectional pattern
- Combined Grey Model and Logistic model to capture time series characteristic of evolvement at different stages
- Responsible for mathematical modeling, R programming, and essay writing

Extracurricular Experience

Alumni Department at Tsinghua School of Economics and Management — **Beijing, China**
Leader — *June 2017 – June 2018*

- Responsible for "Alumni Mentor Program". Led the team to invite 61 alumni mentors for 300+ freshmen
- Pioneered online alumni salon. Went beyond traditional finance to include big data and fintech topic. Attracted 200+ reviewers

Skills and Interests

- **Programming:** Python (proficient, 5 years), R (proficient, 4 years), C++ (proficient), C, Matlab, Stata, SQL, VBA
- **Language:** English (fluent), Chinese - Mandarin (native), Chinese - Shanghai (native)
- **Coursera:** Machine Learning, Differential Equations for Engineers, Numerical Analysis
- **Interests:** Piano, Painting, World Standard Dancing (Member of Students' Art Group at Tsinghua University)