Shanyan (Cindy) Lai, Ph.D.

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EDUCATION

University of York UK
Ph.D. in advanced AI for Economics and Finance 10/2021 – 07/2026
Focus: Advanced machine learning techniques for factor investing and asset pricing.

Newcastle University UK
MSc in Quantitative Finance and Risk Management 09/2018 – 11/2019

Zhejiang University China
BSc in International Economics and Trade 09/2007 – 07/2011

WORKING PAPERS & ACADEMIC PROJECTS

Working Papers: Available at https://cindylai125.github.io/

- **A**sset Pricing in Pre-trained Transformer
- **I**s attention truly all we need? An empirical study of asset pricing in pretrained RNN sparse and global attention models
- **M**ultilayer Perceptron Neural Network Models in Asset Pricing: An Empirical Study on Large-Cap US Stocks

Independent Academic Projects (UK, Prior to 2022):

- **Risk Management via MATLAB**: Quantitative modeling and stress-testing frameworks.
- **Pairs Trading Strategies**: Formulated and backtested statistical arbitrage via linear and non-linear autoregressive GARCH models (MATLAB).
- **Factor Models of Asset Pricing**: Evaluated structural and dynamic factor models under the Generalized Method of Moments (GMM) framework (STATA).

PROFESSIONAL EXPERIENCE

Critical Investment Management Co., LTD China
Financial Advisor and Trader

- Traded in secondary markets covering US and China equity and commodity futures.
- Achieved supervised trading performance: 19.96% (2013/2014), 49.15% (2014/2015), and 24.95% (2015/2016).
- Conducted independent discretionary trading (Dec 2019 – Nov 2020) in US markets, attaining a 31.93% annual return with a Sharpe ratio of 1.41, Maximum Drawdown of 11.14%, and daily standard deviation of 1.28%.
- Participated in the structural design, regulation compliance, and issuance of a private investment fund in 2015 as both key structural contributor and Limited Partner (LP).

Beijing Forise Assets Management Company Beijing, China
Financial Product Manager 05/2015 – 05/2016

- Provided structural and quantitative background analysis and institutional support for the advisory sales team.
- Spearheaded investor presentations and product rollouts for private offering funds and offshore vehicles (e.g., AIA Insurance HK).
- Conducted exhaustive product audits and risk flaw detection across asset allocation portfolios.

Hangzhou Xiacheng District State-owned Capital Investment Company Hangzhou, China
Accounting Supervisor 04/2011 – 02/2015

- Promoted systematically from Accounting Assistant to Subsidiary Corporation Accountant (Year 2) and Financial Supervisor (Year 3).

- Supervised capital accounting operations, enterprise financial decision-making reports, and investment project risk appraisals.

TEACHING EXPERIENCE

Graduate Teaching Assistant (GTA) UK

- Delivered tutorial demonstrations, problem-solving workshops, and examination marking for:
  - Introduction to Business Reporting and Financial Accounting
  - Modern Theory of Banking and Finance
  - Data Analysis for Economics | Probability
  - Corporate Finance | Financial Market Structure and Regulations

SKILLS & PROFESSIONAL QUALIFICATIONS

- **Technical & Programming**: Python (Proficient), MATLAB (Advanced), LaTeX (Advanced), STATA (Competent), R (Exposure).
- **Financial Expertise**: Quantitative Asset Pricing, Factor Investing, US Commodity Futures & Equities Trading, Secondary Market Arbitrage.
- **Languages**: Mandarin Chinese (Native), English (Proficient), French (Exposure).
- **Professional Qualifications**: AMAC China, Certificate of Accounting Professional (China), ICFQC China, CHFP, Futures Analyst Qualification (China), Securities Practice Qualification (China), Microsoft Public Relations Associate (ACE Accredited).