Yichen Luo

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Education Background

University College London   SEP2023 – SEP2027 (Expected)
Ph.D. in Computer Science

University College London   SEP 2022 – SEP 2023
M.Sc. in Banking and Digital Finance

Durham University   SEP 2019 – JUN 2022
B.Sc. in Finance
- Mark: First Class Honours
- Core Modules: Corporate Finance, Financial Econometrics, Financial Derivatives and Financial Engineering, Computational Quantitative Finance

Research Interests

Blockchain Technology, Decentralized Finance, Machine Learning

Research Experience (Research Assistant)

Dominant Currencies in DeFi [Github Link]   NOV 2022 – Present
London School of Economics and Political Science   *Supervisor: Kathy Yuan*
- In this project, I calculated the eigenvector and betweenness centrality for DeFi tokens among transactions in decentralized exchanges.
- I standardized the dataset of DeFi Tokens, making the python project scripts tidier.
- I reconstructed the scripts and github repository of the project via modularization.

Insider Trading in Decentralized Finance [Github Link]   APR 2022 – Present
The University of Hong Kong   *Supervisor: Professor Yang You*
- I used the requests in python to query more than 486,606,019 transaction data and 14,807 DeFi tokens prices from the API (The Graph) of 15 Decentralized Cryptocurrency Exchanges in five blockchains such as Uniswap in Ethereum
- I got the team wallets/addresses of different crypto projects via Team Finance and blockchain explores such as Etherscan and checked when as well as how many DeFi tokens they locked and unlocked in Team Finance.
- I matched the team wallets with the transaction information and successfully identified about 100 insiders out of 9, 012 team wallets.

Disposition Effect and Policy Uncertainty   APR 2022 – DEC 2022
The University of Hong Kong   *Supervisor: Professor Chen Lin*
- I replicated the models of disposition effect and V-shape disposition effect in Chang, Solomon, and Westerfield (2016, JF) and Ben-David and Hirshleifer (2012, RFS) and found that there are both disposition effect and V-shape disposition effect.
- I also replicated the policy uncertainty index from Baker et al. (2016) and Huang & Luk (2018) and found that the policy uncertainty will affect the V-shape disposition effect.

Empirical Cryptocurrency Pricing via Machine Learning [Github Link]   FEB 2022 – DEC 2022
The University of Hong Kong   *Co-author: Ph.D. Wenzhi Ding*
- In this project, we examined the cryptocurrency return predictability via risk factors and machine learning.

- I constructed cryptocurrency asset pricing factors and replicated the paper of Liu, Tsyvinski, and Wu (2020, JF) paper.
- I retrieved stock market index as well as forex data from WRDS and cleaned data sets.
- Following Gu, Kelly, and Xiu (2020, RFS), I predicted crypto asset return via machine learning methods such as neural networks and evaluated factor importance.

Research Project of Topics in ESG [Github Link]   FEB 2022 – DEC 2022

The University of Hong Kong   *Co-author: Ph.D. Wenzhi Ding*
- In this project, we examine the ESG peer effect among rival companies.
- I explored and summarized product similarity score data (TNIC by Hoberg and Philips, 2016 JPE).
- I also cleaned and merged mainstream ESG data sets, including ASSET4, MSCI KLD, and RepRisk.
- I conducted fuzzy matching by Jellyfish module (Jaro Similarity and Levinstein Distance) to achieve better matching among data sets from different vendors.

Working Paper

ESG Score, Scandal Probability, and Event Return (with Wenzhi Ding, Wenya Sun, S.M. Yiu, Luping Yu), Revise and Resubmit of Financial Innovation. [SSRN]

Industry Experience (Internship)

China Construction Bank   JUN 2020 – JUL 2020

Assistant for International Settlements
- In this internship, I generated letter of guarantee (L/G) and letter of credit (L/C). I identified swift code via UCP 600, ISBP, and INCOTERMS of ICC.
- I was also responsible for documents examination, paying, and documents presentations about L/G and L/C.

Additional Skills

Language: Mandarin Chinese (Native), English (Fluent)
Programming Skills: Python, LaTeX, Markdown, HTML, CSS, JavaScript, Git, SQL, MongoDB, Solidity
Research-related:

- **Linux Server Operation:** Windows/macOS: SSH and SFTP

- **Paper Writing:** Overleaf

- **Literature Management:** EndNote, Mendeley

- **Causal Inference:** DID, Event Study, Panel Regression

- **Web Crawler Module:** requests, Selenium, BeautifulSoup, threading

- **Machine Learning Module:** Scikit-learn, Keras, PyTorch; Methods: Ridge, Lasso, Elastic Net, Neural Networks, Gradient Boosted, Regression Trees, Random Forests, Principal Components Analysis, Support Vector Machine

- **NLP:** Bag of Words, TF-IDF model, Sentiment Analysis, Text Distance and Similarity, Regular Expression, Fuzzy Matching