Zack C. H. Tsien (錢政禧)
PhD Candidate, National University of Singapore

Email | Website | LinkedIn
GitHub | ORCID | OpenReview

Education

National University of Singapore **(Aug 2024 – May 2028)**
PhD in Digital Financial Technology
Core Competencies: Empirical Asset Pricing, Continuous-time Finance, High-Dimensional Econometrics & Deep Learning

University of Oxford **(Oct 2022 – Jun 2024)**
MPhil in Economics
Core Competencies: Asset Pricing Theory, Advanced Real Analysis & Measure Theory, Structural Estimation, Causal Inference

University of Amsterdam **(Sep 2020 – Jul 2022)**
BA (Hons with Distinction) in Liberal Arts and Sciences (Social Sciences)
** Completed this 3-year honour program in 2 years*

Rice University **(May 2020 – Jul 2020)**
Math Camp for Economics PhD Students
Intensive training in Real Analysis, Linear Algebra, and Differential Equations.

Research Interests

Interests: Empirical Asset Pricing, Demand System Asset Pricing, Financial Machine Learning

Selected Publications

Market Agent Nexus: Agent-Based Simulation for Financial Forecasting
Kelvin J.L. Koa, Yuncong Liu, **Zhengxi Qian**, Qi Fu, Yunshan Ma, Ke-Wei Huang
Submitted to International Conference on Machine Learning (ICML), 2026
Proposed a unified framework simulating financial forecasts and investor behavior using real-life 13F disclosures and self-evolving agent loops.

Working Papers

Active Dispersion: Does it Measure Differential Information or Short-selling Constraints?
(Work in Progress)

Teaching Experience

National University of Singapore
Graduate Teaching Assistant for FT5005: Machine Learning for Finance; Jan 2026 – Present
Facilitated training and evaluation on the application of neural networks and gradient boosting methods in Empirical Finance.

University of Oxford
Teaching Assistant for Macroeconomics (PPE Programme); 2024
Teaching Assistant for Microeconomics (PPE Programme); 2023

University of Amsterdam
Guest Speaker for Artificial Cognition (Undergraduate level); 2023 – 2025

Grants, Awards, and Honours

AIDF Scholarship, Monetary Authority of Singapore 2024
NUS Research Scholarship, National University of Singapore 2024
George Webb Medley Endowment Fund, University of Oxford 2024
Full Scholarship, Amsterdam Scholarship Fund 2020
Gold Award, UK Maths Trust 2017

Industry & Research Experience

NExT++ Research Center **(Jun 2024 – Jun 2025)**
Deep Learning Researcher (Part-time)
Project: Macro-financial forecasting using Pretrained Foundation Models

Conducted research on Macro-financial forecasting using Pretrained Foundation Models and Boosting algorithms under the NUS AIDF framework.

Skills

Coding: Python, LaTeX, R, Julia, SQL, Matlab, Dynare, EViews, C, C++, Stata, SPSS

Language: English (Full Professional), Chinese (Native), Dutch (Professional Working), Japanese (Intermediate)

Interest: Swimming, Cycling, Marathon, Triathlon