HSU, Ke-Cheng (Clio)

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Professional Summary

PhD candidate in Economics at HKUST with strong statistical training in empirical industrial organization and market structure. Learns product and system workflows quickly; strong reconciliation-style checking and Python automation on large transaction panels; investigates breaks; delivers accurate figures under deadlines; AI-assisted coding with verified outputs. Clear English communicator who structures complex ideas carefully and works independently under pressure; collaborates in Mandarin and English. Hong Kong permanent resident. Seeking Trade Assistant – Hedge Fund; available as early as February 2027.

Education

The Hong Kong University of Science and Technology, Hong Kong

Doctor of Philosophy in Economics Expected Graduation: June 2027 (available as early as February 2027)

Research interests: Empirical industrial organization and digital economics.

Master of Philosophy in Economics 2020–2022

CGA: 4.1/4.3.

Bachelor of Science in Mathematics and Economics, Minor in Actuarial Mathematics 2015–2019

CGA: 3.9/4.3.

Awards: Dean's List (2016–2019); University Scholarship (730K HKD); Academic Achievement Medal (top 1%); Postgraduate studentship (1.5M HKD); Redbird scholarship (40K HKD).

Experience

Research Assistant, National Taiwan University 2020

- Built a MATLAB model of a bank crisis on an interbank lending network; traced how losses and cash-flow pressure propagate across counterparties when a no-bailout threat is or is not credible.

Teaching Assistant & Lecturer, Department of Economics, HKUST 2020–present

- Lecturer for MSc Math Camp (4.53/5); TA for PhD and undergraduate economics (avg 4.72/5); deliver accurate technical material on deadline.

Teaching Assistant Coordinator, Business School, HKUST 2025–2026

- Coordinated a teaching team and checked materials for consistency before release—process control under fixed timelines.

Hall Tutor, UG Hall I, HKUST 2024–present

- Mediated resident conflicts; led orientation, workshops, and career talks.

Projects

Inventory and Pricing under Resale Price Maintenance (RPM) *(w/ K. Kawaguchi, HKUST; K. Kawai, U. Tokyo)*

- Built a dynamic oligopoly model of pricing and inventory under demand uncertainty and RPM, with equilibrium stockouts and unsold returns (35–40% of Japanese books printed are discarded); constructed title-by-market-by-month panels from monthly bookstore POS data (deliveries, sales, returns; tens of billions of records across 1,000+ stores), linked via standardized ISBNs and merged with local demographics and detailed title-level information scraped from Amazon in Python.
- Estimated demand and supply with instrumental variables (2SLS) and Hausman-style price instruments; validated the estimator with Monte Carlo on simulated equilibria; selected controls with LASSO and panel fixed effects; implemented iterative equilibrium simulation in C++.
- Delivered weekly descriptive statistics, regressions, and figures on a fixed deadline; showed a classical static model overstates marginal cost by ∼20% once demand uncertainty and inventory are ignored—reconciliation-style checking of large panels under pressure.

Return Policy Design in E-Commerce *(Sole-authored Job Market Paper)*

- Sole-authored Ph.D. structural industrial-organization study: built and estimated a model of purchase, return-shipping-insurance take-up, and return under monopoly pricing, using within-retailer switches between automatic provision and selective adoption of return-shipping insurance on Taobao (2017–2023; ∼62M RMB revenue; six apparel categories; ∼20–30% return rates); scraped and OCR-digitized product attributes in Python.
- Built and validated a reproducible Python / R / C++ pipeline on AWS and HPC/SLURM; cleaned and linked orders, prices, insurance, and returns so front-end records and analysis tables stay consistent; investigated anomalies in returns and insurance take-up.
- Estimated structural demand and return responses via GMM with bootstrap checks; a moderate restocking-fee menu raises social welfare by about 2 million RMB (∼5%) and seller profit by about 1.2 million RMB relative to status-quo insurance policies.

Skills

Languages: Mandarin (Native), English (Fluent), Cantonese (Basic).

Technical: Python, R, MATLAB, Stata, C++, Microsoft Excel, Word, PowerPoint, LaTeX, AWS, HPC/SLURM; data cleaning, reconciliation-style checks, automation, GMM, Monte Carlo, bootstrap.

AI: Daily use of AI tools for coding and workflow improvement; outputs verified by tests.

Fit: Trade Assistant / middle-office support; multi-asset trade capture mindset; break investigation; EOD position/P&L monitoring discipline.

References: Kei Kawai (UTokyo; Compass Lexecon), Kohei Kawaguchi (HKUST; UTokyo Econ Consulting), Pak Hung Au (HKUST).