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 proprietary systems and procedures quickly; follows instructions exactly; monitors live transaction/position/style panels; investigates anomalies; reconciles multi-source records; produces clear P&L/risk summaries and Mandarin/English handovers. Works under fixed deadlines with tested Python / R / C++ pipelines on AWS/HPC. Open to 24/7 rotating shifts. Hong Kong permanent resident. Seeking Digital Asset Trading Operator role; 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

- Simulated interbank crisis dynamics; tracked cash/liquidity pressure and counterparty exposure when risk controls fail—practice thinking in balances, limits, and cascade risk.

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 precise instructions under fixed schedules.

Teaching Assistant Coordinator, Business School, HKUST 2025–2026

- Enforced one operating standard for team materials before release; clear handoffs and procedure compliance.

Hall Tutor, UG Hall I, HKUST 2024–present

- Mediated resident conflicts; led orientation, workshops, and career talks—teamwork and handover discipline.

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 Amazon-scraped title attributes in Python.
- Estimated demand and supply with 2SLS and Hausman-style instruments; validated with Monte Carlo; LASSO controls; iterative equilibrium simulation in C++.
- Built and reconciled POS panels; monitored stockouts and inventory flows; issued weekly position/performance figures on a hard deadline—same operating rhythm as trading/ops monitoring.

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

- Sole-authored Ph.D. structural study: built and estimated a model of purchase, return-shipping-insurance take-up, and return under monopoly pricing on Taobao (2017–2023; ∼62M RMB revenue; six apparel categories; ∼20–30% return rates); scraped and OCR-digitized product attributes in Python.
- Executed a controlled Python / R / C++ workflow on AWS/HPC: ingest trades, link orders/prices/insurance/returns, flag anomalies, and reconcile raw files to final tables before any decision output; GMM with bootstrap inference and Monte Carlo validation.
- Produced daily-style summaries of volumes, profits, and scenario P&L/welfare (moderate restocking-fee menu: about +2M RMB welfare / ∼5% and +1.2M RMB profit vs status quo).

Skills

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

Technical: Python, Excel, R, MATLAB, C++, Stata, Word, PowerPoint, LaTeX, AWS, HPC/SLURM; reconciliation, anomaly detection, automation, reporting.

AI tools: Daily use of Copilot and Cursor for coding; every output verified before sharing.

Fit: Fast learner of proprietary systems; willing to work day/night/weekend/public-holiday shifts; risk-limit and procedure discipline.

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