HSU, Ke-Cheng (Clio)

(852) 6840 9753 | khsu@connect.ust.hk | github.com/cliohsu1997 | cliohsu1997.github.io

Professional Summary

PhD candidate in Economics at HKUST with strong statistical training in empirical industrial organization and market structure. Works with large proprietary datasets (e-commerce transactions and retail point-of-sale records), builds structural models, and estimates profit, welfare, and economic loss under counterfactual scenarios—the same quantification skill set used in portfolio monitoring, strategy analysis, and fund-operations reporting. Clear written and verbal communicator who structures complex ideas for non-specialists, delivers careful work to deadlines, and picks up new datasets and product conventions quickly; collaborates in Mandarin (fluent / required) and English. Hong Kong permanent resident. Seeking Data Strategy Analyst role; present salary HKD 20,000; expected HKD 25,000–30,000; 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 an interbank-crisis model; analyzed how positions and liquidity stress propagate—practice for portfolio/market-condition thinking.

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); clear Mandarin and English delivery of quantitative results.

Teaching Assistant Coordinator, Business School, HKUST 2025–2026

- Coordinated projects across a teaching team; standardized reports before release.

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++.
- Monitored pricing, inventory, and return flows on large POS panels; issued weekly status figures and short written updates—same cadence as periodic portfolio reports.

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.
- Integrated orders, prices, insurance, and returns; identified behavioral patterns; produced strategy-style scenario reports; built tested Python / R / C++ pipelines on AWS/HPC with GMM and bootstrap inference.
- Documented a purchase–return efficiency trade-off and showed that a menu pairing a discounted price with a moderate (∼10–15%) restocking fee 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 / fluent — required), English (Fluent), Cantonese (Basic).

Technical: Python, R, MATLAB, Stata, C++, Excel, Word, PowerPoint, LaTeX, AWS, HPC/SLURM; multi-source data analysis, monitoring, reporting, automation; MLE, GMM, bootstrap.

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

Fit: Data Strategy Analyst; portfolio/position monitoring; fund-ops admin support; present HKD 20,000; expected HKD 25,000–30,000.

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