

Yifan Wang

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Education

National University of Singapore

Aug 2025 - now

- PhD student in Economics

The Australian National University Honours Degree in Economics

Jun 2022

- Honours Thesis: *Tax Competition, Endogenous Taxation and Business Environment*
- Research School of Economics Bob Gregory Honours Scholarship (AUD 10,000)
- Key Courses: Advanced Behavioural Economics (1/40), Financial Economics (top 2%), Contract Theory, Advanced Micro Theory, Advanced Macro Theory

The Australian National University Bachelor of Economics

Jun 2020

Research Experience

Full-time Research Assistant Faculty of Business and Economics, HKU

RA for Professor Uta Schönberg (Co-Editor of AER)

May 2024 – Present

- General equilibrium modeling: Developed and solved multi-sector GE models for small open economies using Jones' algebra and Rybczynski frameworks to analyze the structural impacts of immigration on factor allocation and wage dynamics.
- Theoretical derivation: Constructed one-sector closed economy models with CRS technology; derived closed-form solutions incorporating endogenous labor/capital supply and price effects.
- Methodological Innovation: Designed automated NLP pipelines via Python APIs to synthesize literature on labor economics, streamlining identification of research frontiers.

RA for Professor Chang Sun

Aug 2023 – Apr 2024

- Analyzed the transmission of productivity shocks through global production networks and round-about economies using structural estimation of Leontief-inverted matrices.
- Generalized optimal taxation theory to a multi-country framework incorporating foreign direct investment (FDI) and production networks to evaluate spatial labor market dynamics.
- Investigated the cushioning effects of inventory holdings on economic shock propagation by endogenizing inventory decisions within a multi-sector production network.

Research Honours Student

Research School of Economics, ANU

Canberra, Australia

Jun 2022 – Dec 2022

Research Assistant

Tax and Transfer Policy Institute, Crawford School of Public Policy, ANU

Canberra, Australia

Aug 2020 – Jan 2021

Professional Experiences Combined

2017 – 2021

Gained diverse industry exposure through internships at Fosun International (investment Analysis), Intellisla Research Institute (AI and Fintech Research), Bank of China (investment banking & deals) and Ernst & Young (Economic Consulting). Developed skills in macroeconomic analysis, industry research, and applied econometric methods while working on projects spanning regional economic development, AI policy implications, and investment feasibility studies.

Working Papers and Research in Progress

Research Interests: Macroeconomics, Economic Growth, Economics of Artificial Intelligence, and Structural Labor.

AI as Virtual Immigration: Cognitive Substitution, Talent Cutoffs, and Firm Optimization *Work in Progress*

Abstract: This paper develops a task-based general equilibrium framework that formalizes AI as "virtual immigration". I define a Talent Cutoff Theorem, showing that AI adoption compresses wage dispersion by eroding knowledge monopolies and disproportionately benefiting low-skill agents. The model yields testable predictions on adoption paths and identifies a "frontier twist" in the production possibility set as token prices decline.

Labor Market Segmentation with Rationed Entry

supervised by Professor Uta Schöenberg

Abstract: This research constructs a dynamic equilibrium model featuring rationed premium segments and an O-ring ability aggregator. By incorporating learning-by-doing skill evolution, the model explains persistent wage premiums and demonstrates how temporary mismatches can be optimal for sector-specific human capital accumulation.

A General Equilibrium Model for Inventories

Abstract: This paper develops a multi-country, multi-sector production network model incorporating firms' inventory holdings for intermediate and final goods. By fully endogenizing inventory decisions, the model uncovers a unique propagation mechanism for global shocks distinct from international trade channels, while demonstrating isomorphism to other multi-sector models with input-output linkages under certain constraints.

Revisiting Fixed Production Costs: A Modified Micro-to-Macro Model in Multinational Production, *with Prof Chang Sun*

Abstract: This paper extends the Costinot et al. (2020) framework to incorporate multinational production and Foreign Direct Investment (FDI), developing a comprehensive model for n countries that determines optimal production locations based on blueprint technology.

Teaching Experience

Academic Tutor & Teaching Assistant

Canberra, Australia

Research School of Economics, Australian National University

Feb 2020 – Feb 2021

- Instructed weekly Microeconomics I (ECON1101) tutorials for cohorts of up to 90 undergraduate students.

Tutor

Mar 2019 – Feb 2020

- Delivered lectures and tutorials including UCL, KCL, ANU, and UCSD. Instructed 50+ advanced economics courses such as Advanced Microeconomics, Game Theory, and Industrial Organization at graduate levels.

Technologies

Technologies: Python, MATLAB, L^AT_EX, R; **Languages:** Chinese (Native), English (Proficient)