

# William Fang

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## Education

**University of British Columbia** Vancouver, BC  
*M.A. Economics (GPA 4.1/4.33)* Sep 2024 – Aug 2025

- Relevant Courses: Data Science, Machine Learning, Monetary Policy, Political Economics.
- Awarded Competitive Graduate Teaching Assistantship (2024 – 2025).

*B.Sc. Food and Resource Economics (with honors, GPA 4.0/4.33)* Sep 2020 – May 2024

- Relevant Courses: Causal Inference, Applied Economics, Econometrics.
- Outstanding Graduates of 2024 Class ([Link Here](#)); F.M. Clement Prize; Dean's Honor Roll (2021 – 2023).

## Professional Appointment

**University of British Columbia** Vancouver, BC  
*Research Assistant (for Professor **Nathan Nunn**)* May 2025 – Present

- Data Engineering: Managed the end-to-end process of data acquisition, cleaning (Python/R/Stata), and integration of multiple complex sources, creating analysis-ready datasets for key projects.
- Quantitative Analysis & Insight: Applied statistical and econometric methods to explore data, test hypotheses, and generate actionable insights. Communicated findings via clear visualizations and descriptive tables.
- Project Delivery & Quality Control: Enhanced the quality and impact of co-authored reports through critical proofreading, fact-checking, and providing feedback to improve narrative structure and analytical precision.

**University of British Columbia** Vancouver, BC  
*Teaching Assistant* Jul 2022 – Apr 2025

- Provided hands-on training in Stata, R, Python, and survey design (Qualtrics); managed grading and analytical evaluation for large cohorts.
- Led tutorials for 400+ students in Microeconomics, Game Theory, and Applied Data Analysis, with emphasis on causal inference and applied econometrics.

## Selected Projects

### Data Science: The Long-Term Effects of China's One-Child Policy

- We employed a novel spatial regression discontinuity design to quantify the long-term effects of China's One-Child Policy. Results indicate that stricter enforcement caused a 5-point CPI decrease, a 13% rise in secondary sector output, and a doubling of housing price growth, with causality verified via construction of counterfactuals and placebo tests.

### Effects of Monetary Shocks in Canada: A Vector Autoregression Analysis with Sign Restrictions

- We employed a Vector Autoregression (VAR) model identified via short-run sign restrictions on 2004-2024 data. We revealed that a contractionary interest rate shock effectively curbed inflation metrics but yielded complex real-economy effects, including a non-persistent GDP response and an initial decline in unemployment. I contextualized these counterintuitive labor market results with contemporaneous fiscal policy and validated the robustness of the core findings through comprehensive sensitivity analysis on model lags.

## Skills

**Technical Skills:** Python, RStudio, STATA, Matlab (with Dynare), PowerBI, SQL, Excel,  $\text{\LaTeX}$ .

**Languages:** English (Native), Mandarin (Native), Cantonese (Advanced), Teochew (Advanced).