Zixi Zhou

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EDUCATION

- **Dongbei University of Financea and Economics** *Sept 2021 - June 2025*
  Bachelor of Economics, Major: Finance Dalian, Country
  ◦ GPA: 3.81/4.00, 89.75/100
  ◦ Course: Probability Theory and Mathematical Statistics (97), Operations Research (94), C Programming (94), Data Mining (98), Econometrics I & II (94).

- **Shanghai Jiao Tong University** *June 2023 - July 2023*
  Summer School Shanghai, China
  ◦ Course: Statistical inference (A), Introduction to Statistical Learning (A-)

- **Duke University** *Aug 2025 - June 2027*
  Master of Economics Durham, United States

WORK IN PROGRESS

- **Panel Quantile Regression with Heterogeneous Slope Coefficients** *Nov 2023 - Current*
  with Yutao Sun (α, β order)
  ◦ We develop a smoothed panel quantile regression framework with heterogeneous slopes and multi-way fixed effects that accommodates both static and dynamic models. Estimation of individual and time effects induces an incidental-parameter bias, so that the smoothed quantile estimator admits non-negligible $1/T$ and $1/N$ bias components and is not asymptotically centered. Leveraging convolution-based smoothing to obtain differentiable estimating equations, we derive closed-form bias expansions and construct an analytical bias correction that restores centered asymptotic normality for the target parameters. On the computational side, we design dynamic-panel-specific refinements including truncation schemes for dependence control and stabilized score mappings—to enhance robustness and finite-sample performance.

- **Bias Correction for Dynamic Discrete Games with Strategic Heterogeneity**[*] *Jan 2026 - Current*
  with Qinzhi Zeng
  ◦ We study the incidental-parameter problem in dynamic discrete-choice games with unobserved individual heterogeneity. In strategic environments, fixed-effect estimation errors enter players' equilibrium expectations, leading to strategic propagation of bias across agents. Building on functional differencing in Aguirregabiria et al. (2024) and analytical bias-expansion insights from Fernández-Val & Weidner (2016), we develop an analytical bias-correction strategy for MLE-based structural estimation.
  ◦ [*]preliminary results

SKILLS

- **Programming:** Python, Matlab, C, R
- **Languages:** Mandarine (native), English

AWARDS

- Multiple Third-Class Scholarship (2021, 2022, 2023, 2024)
- Duke Economics Master's Scholar Award (four academic terms)