CHAO WANG

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PROFILE

- Ph.D. candidate of economics at Indiana University, adept at industrial organization and econometrics
- Seven years of hands-on experience with structural estimation, causal inference, and machine learning
- Proficient in working with large-scale market data, survey data, and discrete choice experiments
- Proven track record of cooperation and communication skills

EDUCATION

Indiana University, Bloomington — Ph.D. in Economics (STEM) *2018-2024 (expected)*

Fields: Empirical Industrial Organization, Applied Econometrics, Applied Microeconomics

Xi'an Jiaotong University (China) — MA in Economics *2016-2018*

Xi'an Jiaotong University (China) — BA in Economics *2012-2016*

SKILLS

Methods

Structural Estimation: BLP, dynamic discrete choice model, auction

Causal Inference: Diff-in-Diff, IV, Regression Discontinuity, Synthetic Control Method

Machine Learning: GAMs, trees-based classification, random forests, text mining, unsupervised learning (association rules, clustering)

Programming

Statistical Modeling: Python (NumPy, Matplotlib, Pandas), R, Matlab, Stata, Fortran

Database and Version Control: MySQL, Git

RESEARCH PROJECTS

Vehicle Ownership Heterogeneity and Electric Vehicle Subsidy Policy *2021-Present*

- Investigated heterogeneous socio-demographic households' responses to electric vehicle (EV) subsidies in California; proposed an improved subsidy scheme to promote EV adoption.
- Utilized large-scale economic dataset (IHS Markit), large-scale survey data and discrete choice experiments.
- Conducted causal inference analysis (IV-based) in R and structural demand estimation of EV in Python.

Identification of Time Preferences in Dynamic Discrete Choice Models *2019-2023*

- Provided novel identification results for policy-related dynamic decision environments.
- Leveraged terminating action to avoid widely used normalization assumptions.
- Simulated structural models using Matlab and visualized results using Python (matplotlib).

Text Mining in Financial Newspapers *2017-2018*

- Examined the focuses of different parts of online news in the newspaper dataset (NYSK).
- Conducted text process, mining, and visualization through XML, tm, and SnowballC in R.
- Analyzed the visualized association rules through Apriori algorithm in R.

EXPERIENCE

Research Assistant, Department of Economics, Indiana University *June 2021 - Dec 2023*

- Reviewed and summarized the literature in dynamic experiments in intertemporal choices problem.
- Utilized MySQL to extract information from large-scale gamer databases of user profiles and experience.
- Performed statistical analysis and visualized directed network on map using R.

Teaching Experience, Indiana University *2018-2023*

- Associate Instructor: Taught undergraduate microeconomics courses which include giving lectures, designing tests and assignments, and grading.
- Teaching Assistant: Provided recitations for an advanced microeconomics course for Ph.D. students.