

XINHAO QU

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EDUCATION

Xiamen University	Xiamen, China	Sep 2021-Jun 2024
<ul style="list-style-type: none">Master of Science in Statistics (Direction of Mathematical Statistics), Supervisor: Prof. Wei Zhong GPA: 3.64/4.00Leader of Machine Learning Group, WISERCLUBHonors: Academic Scholarship (2021-2023)Specialized Courses (PhD level): <i>Statistical Data Analysis</i>: 92 (Top 3%), <i>Statistical Machine Learning</i>: 92, <i>Multivariate Statistical Analysis</i>: 97 (Top 1%), <i>Large Sample Theory</i>: 100 (Top 1%), <i>Advanced Econometrics I</i>: 91, <i>Advanced Econometrics II</i>: 89 (Top 1%)Stat-Center Summer School at Peking University		
	Beijing, China	Jul 2023-Aug 2023
Zhengzhou University	Henan, China	Sep 2017-Jun 2021
<ul style="list-style-type: none">Bachelor of Economics in Economic Statistics, Supervisor: Prof. Yanan Hu GPA: 3.75/4.00 (1/31), Major GPA: 3.87/4.00 (1/31)Honors: Graduation Highlight (2021), First-class Scholarship (2020&2018), “Zhong’ An Cotton” Scholarship (2019), Provincial Fellowship of Innovation and Entrepreneurship (2019), Second place of 16th National Challenge Cup Competition (Top 1‰)Exchange Program: Stanford University & U.C. Berkeley		
	Berkeley, CA	Feb 2019

PAPER&CONFERENCE

Xinhao Qu. Guided Transfer Learning for High-Dimensional Linear Regression, *Working Paper*.
Xinhao Qu. Partial Transfer Learning Under High-Dimensional Confounding: Estimation, Prediction, and Efficiency, *Master’s Graduation Thesis*, Dec 2023.
Yanan Hu, **Xinhao Qu**, Wolfgang Karl Härdle, Maozai Tian. Smoothed GMM for Spatial Quantile Regression Model, *Journal of Business & Economic Statistics*, *Submitted*, Nov 2023.
Yanan Hu, **Xinhao Qu**, Shihan Guo. Double/Debiased Machine Learning for Spatial Quantile Regression Model and Its Applications, *Journal of Applied Statistics and Management (Chinese Journal)*, *Submitted*, Sep 2023.
Yanan Hu, **Xinhao Qu**. Double/Debiased Machine Learning for Spatial Quantile Regression Model and Its Applications, *International Workshop on Statistical Theory and Related Fields (STARF)*, Dec 2021.
Yanan Hu, **Xinhao Qu**. SGMM for Spatial Quantile Regression Model, *Seminar on Modern Statistics of Xiamen University*, Dec 2020.

RESEARCH&TEACHING EXPERIENCE

Guided Transfer Learning for High-Dimensional Linear Regression	Xiamen, China	Sep 2023-present
<i>Working Paper</i> <ul style="list-style-type: none">Implemented debiasing procedure of Oracle Trans-Lasso (Li et al., 2021) with zero-consistent guidance through oracle regularization.Shown adaptive rate under simultaneous control of source dissimilarity and weight guidance with minimax optimality.Computation efficiency, shaper convergence and robustness in estimation and prediction evident in simulation and GTEx application.		
Partial Transfer Learning Under High-Dimensional Confounding: Estimation, Prediction, and Efficiency	Xiamen, China	Jun 2022-Jul 2023
<i>Master’s Graduation Thesis, Advisor: Prof. Wei Zhong, Prof. Jingyuan Liu, Prof. Xingbai Xu</i> <ul style="list-style-type: none">Enhanced Trans-Lasso framework with a focus on latent confounding and heterogeneous transferrable sources.Developed detection algorithms with sharper consistency through Bootstrap, and sequential estimation algorithms based on DML, SCAD (Oracle) penalty and cross-fitting, suitable for extended scenarios, including federated cases with differential privacy.Demonstrated the consistency, asymptotic normality and enhanced efficiency of Partial Transfer Learning for Signal to Noise Ratio > 1.Conducted extensive simulations and empirical analysis on GTEx database, demonstrated improved estimation and prediction performance of Partial Transfer Learning, by a faster rate of convergence and an average of 22.65% reduce in prediction error.		
Teaching Assistant: Introduction to Data Science	Xiamen, China	2022 Fall
<i>Department of Statistics and Data Science, Xiamen University, Instructor: Prof. Qixian Zhong</i> <ul style="list-style-type: none">Reviewed and graded weekly assignments in Python, providing timely feedback and addressing questions during class sessions.Delivered tutorial classes covering fundamental concepts of 'torch' in Python.		
Statistical Inference of Spatial Quantile Regression Model for High-Dimensional Data	Henan, China	Sep 2019-Aug 2021
<i>The National Social Science Fund of China (NSSFC Youth Project: No.19CTJ010), Main Participant</i> <ul style="list-style-type: none">Analyzed high-dimensional spatial data with quantile heterogeneity. Conducted empirical research using Python to preprocess data from CHINA CITY STATISTICAL YEARBOOK, visualizing smog emissions' heterogeneity at different quantile points using Tableau.Applied and compared DML and Smoothed Generalized Method of Moments methods in spatial quantile regression, demonstrating superior performance over Instrumental Variable Quantile Regression through extensive simulations.		

AWARDS

Preference Detecting for Heterogeneous Community Based on Comment Text	Online	May 2022
<i>2nd ‘MEITUAN’ National Business Analysis Elite Competition (22/1296, Top 2%), Core Team Member</i>		
The Impact of Decentralization on the Quality of Farmers' Income	Beijing, China	Sep 2018-Oct 2019
<i>Second place of 16th National Challenge Cup Competition (Top 1‰), Core Team Member</i>		
<i>Provincial Fellowship of Innovation and Entrepreneurship</i>		
Henan, China		

SKILLS&INTERESTS

Programming Language: R; Python; LaTeX; Research Interest: Statistical Machine Learning; Causal Inference