Yibo Wang

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Education

University of Science and Technology of China Sept. 2022 - June 2026 (Expected)

B.S. in Statistics, Department of Statistics and Finance, School of Management

- **GPA**: 3.98/4.30 **Weighted Score**: 92.20

Publications

1. **Wang, Y.**, Leng, C., and Tang, C. Y. (2025). Generalized Correlation Regression for Clustered Data. (Working Paper)
2. Wu, J., **Wang, Y.**, Pang, X., Zhang, Z. and Zhao, R. (2024). New Quality Productive Forces and Digital Economy: Measurement Index, Coupling Coordinated Degree and Influence Mechanism. (Under Review)

Research Experience

Generalized Correlation Regression for Clustered Data Feb. 2025 - Aug. 2025

Advisor: ***Prof. Chenlei Leng*** *(Professor in Department of Statistics, University of Warwick)*

Co-advisor: ***Prof. Cheng Yong Tang*** *(Professor in Department of Statistics, Operations, and Data Science, Temple University)*

- We introduce generalized correlation regression (GCR), a flexible approach that directly links correlation patterns to interpretable covariates, enabling fine-grained exploration of dependence beyond standard mixed-effects or GEE models.
- GCR accommodates both Gaussian and non-Gaussian outcomes, including binary, categorical, and count data.
- Through three real-world applications, GCR provides a unified framework for regression analysis of correlations that enables valid inference while remaining straightforward to implement. These case studies demonstrate how GCR uncovers clustering effects and covariate-driven dependence structures that conventional methods fail to reveal.

Evolution and Influence Mechanism of New Quality Productive Forces and Digital Economy May 2024 - Oct. 2024

Advisor: ***Prof. Jie Wu*** *(Professor in Department of Management Science, USTC)*

- Constructed measurement index systems for the new quality productive forces(NQPF) and digital economy(DECO). Employed the cross entropy weight method to measure their levels across 30 provinces in China from 2013 to 2022.
- Analyzed the spatiotemporal evolution and coupling relationship of NQPF and DECO, utilizing kernel density estimation, Dagum gini coefficient, and coupling coordination degree model.
- Explored the influence mechanisms between NQPF and DECO by fixed effects model, moderation effects model and threshold regression model. Found that NQPF significantly promoted the development of DECO, with fintech playing a positive moderating role and exhibiting a triple threshold effect.

Scholarship and Awards

- China National Scholarship (Top 0.4% Nationwide) Dec. 2024
- First Prize in 15^{th} Chinese Mathematics Competitions in Anhui Province Dec. 2023
- Bronze Prize in 1^{st} USTC Yuqing Cup Campus Software Design Competition Nov. 2023
- JAC Motors & NIO Joint Scholarship (Top 3 in School) Oct. 2023
- Student Grants by National Basic Subject Talent Training Plan in USTC Dec. 2022

Teaching Assistant

Applied Statistical Software (STAT3002, USTC) Spring 2025

- Undergraduate Course, Lecturer: Canhong Wen & Jing Zeng

Academic Experience

Visiting Student of University of Warwick June 2025 - Sept. 2025

- Advisor: **Prof. Chenlei Leng** Department of Statistics, University of Warwick

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Zhejiang University 2024 SDG Global Summer School July 2024

- Course: Data Acquisition and Processing School of Mathematical Sciences, Zhejiang University

Oxford Prospects Programmes - 2024 Winter On-Campus Programme Jan. 2024 - Feb. 2024

- Module: STEM OPGDI, Regent's Park College, University of Oxford

Leadership and Activities

- **President** of USTC Harmonica Association Sept. 2024 - June 2025
- **Commissioner** of USTC Harmonica Association Sept. 2023 - June 2024