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

PUBLICATION AND SOFTWARE

Publication

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)

Software

1. gcr: R package for generalized correlation regression (see Wang et al., 2025). It can be downloaded directly from Github.

RESEARCH EXPERIENCE

Generalized Correlation Regression for Clustered Data   Feb. 2025 - Present

*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 AWARD

- China National Scholarship (Top 0.4% Nationwide)   Dec. 2024
- First Prize in 15th Chinese Mathematics Competitions in Anhui Province   Dec. 2023
- Bronze Prize in 1st 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

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

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

LEADERSHIP AND ACTIVITY

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