

# QIPENG CHEN

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University of Alabama, Tuscaloosa, AL, USA

Ph.D. Student in Educational Research Methods

## EDUCATION

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### University of Alabama

Ph.D. Student, Educational Research Methods

Advisor: Prof. Kaiwen Man

Aug 2024 - Present

Tuscaloosa, AL, USA

### Zhejiang Normal University

Master of Education

Advisor: Prof. Peida Zhan

Sep 2020 - Jun 2023

Jinhua, Zhejiang, China

## RESEARCH INTERESTS & SKILLS

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### Research Interests

Process Data Applications, Aberrant Response Behaviors, Longitudinal Modeling, Psychometrics

### Technical Skills

**Python:** pymc, numpy, numpyro, seaborn

**R:** mirt, gdina, ggplot2

**Database:** SQL

## JOURNAL ARTICLES

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1. Chen, H., Lin, Z., **Chen, Q.**, & Zhan, P. (2025). Tracking the development of 12 reading subskills using longitudinal cognitive diagnosis models. *Language Assessment Quarterly*, 22(2), 219–241. <https://doi.org/10.1080/15434303.2025.2497821>
2. Zhan, P., Gao, F., & **Chen, Q.** (2025). Key-action coding incorporating misconceptions and its application in diagnostic classification analysis of process data. *Journal of Psychological Science*, 48(2), 481–494. <https://doi.org/10.16719/j.cnki.1671-6981.20250220>
3. Li, Y., **Chen, Q.**, Gao, Y., & Liu, T. (2024). Improvement and application of back random response detection: Based on cumulative sum and change point analysis. *Behavior Research Methods*, 56, 8640–8657. <https://doi.org/10.3758/s13428-024-02495-0>
4. Luo, Y., **Chen, Q.**, Chen, J., & Zhan, P. (2024). Development and validation of two shortened anxiety sensitivity index-3 scales based on item response theory. *Humanities and Social Sciences Communications*, 11, 1078. <https://doi.org/10.1057/s41599-024-03615-z>
5. Fu, Y., **Chen, Q.**, & Zhan, P. (2023). Binary modeling of action sequences in problem-solving tasks: One- and two-parameter action sequence model. *Acta Psychologica Sinica*, 55(8), 1383. <https://doi.org/10.3724/sp.j.1041.2023.01383>
6. Fu, Y., Zhan, P., **Chen, Q.**, & Jiao, H. (2023). Joint modeling of action sequences and action time in computer-based interactive tasks. *Behavior Research Methods*. <https://doi.org/10.3758/s13428-023-02178-2>
7. Liu, Y., Zhan, P., Fu, Y., **Chen, Q.**, Man, K., & Luo, Y. (2023). Using a multi-strategy eye-tracking psychometric model to measure intelligence and identify cognitive strategy in Raven's Advanced Progressive Matrices. *Intelligence*, 100, 101782. <https://doi.org/10.1016/j.intell.2023.101782>
8. Yu, X., Zhan, P., & **Chen, Q.** (2023). Don't worry about the anchor-item setting in longitudinal learning diagnostic assessments. *Frontiers in Psychology*, 14. <https://doi.org/10.3389/fpsyg.2023.1112463>

9. Zhan, P., **Chen, Q.**, Wang, S., & Zhang, X. (2023). Longitudinal joint modeling for assessing parallel interactive development of latent ability and processing speed using responses and Response Times. *Behavior Research Methods*. <https://doi.org/10.3758/s13428-023-02113-5>

## WORKSHOPS

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1. Man, K., Toton, S., Gorney, K., & **Chen, Q.** (2025, April). *Applying Data Mining Methods to Detect Test Fraud* [Workshop session]. NCME Annual Meeting, Denver, CO.

## WORKING EXPERIENCE

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<b>The University of Alabama</b>	Aug 2025 - Present
Teaching Assistant	Tuscaloosa, AL
Developed tutorial materials and data examples for BER 345: Educational Statistics, supporting undergraduate students in statistical concepts and applied data analysis.	
<b>iFLYTEK Co., Ltd.</b>	Feb 2022 - Jul 2022
Assessment Analyst (Internship)	Hefei, Anhui, China
Conducted data preprocessing, database management, statistical analysis, and data visualization for large-scale questionnaire and achievement assessment data.	

## AWARDS AND SCHOLARSHIPS

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<b>Graduate Council Fellowship</b>	2024 - 2025
The University of Alabama	