QIZHOU DUAN

Notre Dame, IN ⋄ (202)-361-1652 ⋄ qduan@alumni.nd.edu

EDUCATION

University of Notre Dame *2026*
Ph.D. in Quantitative Psychology

University of Notre Dame *2023*
M.S. in Applied and Computational Mathematics and Statistics

The College of William & Mary *2020*
B.S. in Mathematics
B.S. in Psychology

RESEARCH INTERESTS

Item Response Theory, Response Time Models, Differential Item Functioning, Non-parametric Statistics, Survival Analysis

EXPERIENCE

Pearson 2026 - Present
Specialist, Psychometrician *Bloomington, MN*

· Provide psychometrics support for Pearson assessment products aimswebPlus and Pearson Review of Progress and Learning (PRoRL).
· Conducting item calibration using R, SAS, Winsteps, and IRTPro for aimswebPlus.

Cambium Assessment 2024 - 2026
Psychometrician *Arington, VA*

· Quality control for test configurations and scoring algorithms for Arkansas, New Jersey, and Utah state assessments.
· Conduct simulation for computerized adaptive tests for Arkansas, New Jersey, and Utah state assessments.
· Research in sample size planning for the state of Arakansas K-2 assesssments.

Notre Dame Institutional Research, Innovation, and Strategy 2024-2025
Graduate Researcher *Notre Dame, IN*

· Provide data visualizations for institutional survey data for stake holders.
· Work with institutional ranking data, and compile literature review for bibliometric research.
· Create deliverable reports for Notre Dame Business School graduates' outcomes.

Learning Analytics and Measurement in Behavioral Sciences Lab 2020-2025
Graduate Researcher *Notre Dame, IN*

· Conduct original research in psychometrics, and produce conference presentations and publishable journal articles.
· Maintain lab website and update information about the lab periodically.
· Mentor undergraduate researchers.

TEACHING

- University of Notre Dame:

    - Spring 2022, *Statistics for Behavioral Sciences*, Student rating (4.7/5.0).

    - Fall 2023, *Methods for Behavioral Sciences*, Student rating (4.9/5.0).

DOCTORAL DISSERTATION

1. Duan, Q. (2025). The application of response time in educational and psychological measurement. Doctoral dissertation, University of Notre Dame. ProQuest Dissertations & Theses Global.

PUBLICATIONS

1. Duan, Q. & Cheng, Y., (2025) Detecting Differential Item Functioning Using Response Time. Educational and Psychological Measurement.

2. Duan, Q., (2015) Listen to the Sound of Time: Poems and Prose Anthology of Qizhou Duan. CreateSpace Independent Publishing Platform.

WORKING PAPERS

1. Duan, Q. & Cheng, Y., Exploring Response Time Using Non-parametric Regression.

2. Duan, Q. & Cheng, Y., A Censored Lognormal Distribution for Response Time at Item Level.

3. Duan, Q. & Cheng, Y., Detecting Differential Item Functioning in Response Time using Penalized Regression.

SELECTED PRESENTATIONS

1. Duan, Q., Cheng, Y. (2025, April) A Censored Lognormal Distribution for Response Time at Item Level. Paper Presented at Gaining New Insights Through Analysis of Multimodal, Multi-Source Data Symposium in 2025 Annual National Council on Measurement and Education, Denver, CO.

2. Duan, Q., Chen, L., Ye, I., & Kirkpatrick, L., (2024, April) Gratitude and Benefit Valuation. Poster Presentation at 2024 Midwestern Psychological Association Annual Meeting, Chicago, IL.

3. Duan, Q., Cheng, Y. (2023, April) Detecting DIF in Response Time Using Bootstrap Percentile Method. Paper Presentation at 2023 Annual National Council on Measurement and Education, Chicago, IL.

4. Duan, Q., Cheng, Y. (2022, April) Detecting Differential Item Functioning Using Response Time. Paper Presented at Response Time Symposium in 2022 Annual National Council on Measurement and Education, San Diego, CA.

HONORS AND AWARDS

Notre Dame Program for Interdisciplinary Educational Research Burns Fellow (2020-2025)
Notre Dame Summer Tuition Scholarship (2021-2025)
The College of William and Mary Institutional Honor: *magna cum laude* (2020)
The College of William and Mary Dean's List (2016,2018,2019)

TECHNICAL STRENGTHS

Programming Languages	R, Python, SQL, SAS, SPSS
Markup Languages	LaTeX, Rmarkdown
Languages	English (Fluent), Chinese (Native)

PROFESSIONAL MEMBERSHIPS

National Council on Measurement in Education
American Educational Research Association
Midwestern Psychological Association
The Erdős Institute
United States Chess Federation