

# QIZHOU DUAN

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Departmental of Psychology, University of Notre Dame ◊ Notre Dame, IN 46556

## EDUCATION

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**University of Notre Dame**

Ph.D. in Quantitative Psychology

*Expected 2025*

**University of Notre Dame**

M.S. in Applied and Computational Mathematics and Statistics

*May 2023*

**The College of William & Mary**

B.S. in Mathematics

B.S. in Psychology

*May 2020*

## RESEARCH INTERESTS

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

## RESEARCH EXPERIENCE

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**Learning Analytics and Measurement in Behavioral Sciences Lab**

*Graduate Researcher*

Fall 2020 - Present

*Notre Dame, IN*

- Presented active research projects in psychometrics to the lab.
- Updated information about lab members and added new pages to the lab website periodically.
- Mentored undergraduate researchers by providing feedback on their research projects, and helping them through various obstacles in the research process.

**Psychological Methods**

*Peer Reviewer*

Spring 2023 - Present

*American Psychological Association*

- Reviewed papers on Differential Item Functioning, Data Integrity and Meta-analysis.

**The College of William and Mary, Department of Psychology**

*Research Assistant; Undergraduate Researcher*

Spring 2019 - Spring 2020

*Williamsburg, VA*

- Predicting Religiosity Project: Worked with Large Dataset, executed multiple regression analysis.
- Benefit Valuation and Gratitude Project: Data collection and cleaning, ran multilevel models in R.
- Lying and Memory Project: Data collection and cleaning, python programming, performed ANOVA.

**State Key Laboratory of Cognitive Neuroscience and Learning**

*Research Assistant*

Summer 2018

*Beijing, China*

- Translated literature in cognitive neuroscience from English to Chinese.
- Proof-read pre-publication manuscripts for doctoral students.

## TEACHING

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– University of Notre Dame:

- Spring 2022, Teaching Assistant.
  - \* Statistics for Behavioral Sciences (PSY 30100)
  - \* Students rating (4.7/5.0)
- Fall 2023, Teaching Assistant.
  - \* Methods for Behavioral Sciences (PSY 30160)
  - \* Students rating (4.9/5.0)

## PUBLICATIONS

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1. Duan, Q. & Cheng, Y., (Accepted) Detecting Differential Item Functioning Using Response Time. Educational and Psychological Measurement.
2. Ober, T., Duan, Q., Kane, E., Blacklock, C., & Cheng, Y., (under review) Student Engagement during COVID-19: A Systematic Review and Meta-analysis. Educational Research Review.
3. Ai, L. A, Duan, Q., Rwil, & Carrett., (under review) Association of Posttraumatic Growth with Covid-19 and Posttraumatic Stress: A Meta-analytic Review. Psychological Trauma: Theory, Research, Practice, and Policy.
4. Duan, Q., (2015) Listen to the Sound of Time: Poems and Prose Anthology of Qizhou Duan. CreateSpace Independent Publishing Platform.

## WORKING PAPERS

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1. Duan, Q. & Cheng, Y., Non-parametric Response Time Estimation for Assessing Model Fit.
2. Duan, Q. & Cheng, Y., A Censored Lognormal Distribution for Response Time at Item Level.
3. Duan, Q., Le, Ann, & Cheng, Y., A Machine Learning Approach to Assess Differential Item Functioning in Response Time.
4. Hong, M., Ju, D., Duan, Q. & Cheng, Y., Reliability in Response Time.
5. Duan, Q., Xu, C., & Kirkpatrick, L., Benefit Valuation and Gratitude.

## PRESENTATIONS

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1. Ai, A., Duan, Q. & Raney A., (2024, August) Character Strength Spirituality and Hope Mediate the Faith-based Coping and 3-Types of Wellbeing. Paper presented Spirituality and Mental Health in Natural Hazzard and Related Existential Crises Symposium at 2024 American Psychological Association Convention, Seattle, WA.
2. Ai, A., Duan, Q., Qiu, G., Sabuncu, C., & Stouffer, G., (2024, August) Cardiovascular Disease and Posttraumatic Growth: A Meta-analytic Review. Poster Presentation at 2024 American Psychological Association Convention, Seattle, WA.
3. 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.
4. Duan, Q., Le, A., & Cheng, Y., (2023, December) A Machine Learning Approach to Assess Differential Item Functioning in Educational Testing. Research Lightning Talk at 2023 Trustworthy AI Lab for Education Summit, Notre Dame, IN.
5. Duan, Q., Cheng, Y. (2023, November) Nonparametric Response Time Estimation for Evaluating Model Fit. Paper Presentation at 2023 Ideas In Testing Research Seminar, Chicago, IL.

6. Kane, E., Blacklock, C., Duan, Q., Ober, T., & Cheng, Y., (2023, May) Student Engagement During COVID-19: A Systematic Review and Meta-Analysis. Poster Presentation at 2023 Association for Psychological Science Annual Convention, Washington DC.
7. 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.
8. 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.

## LEADERSHIP AND SERVICE

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Graduate Student Union Representative, Department of Psychology  
 Graduate Advisory Committee Representative, Department of Psychology  
 Faculty Meeting Student Representative, Department of Psychology  
 Statistical Consultant, Department of Psychology

## HONORS AND AWARDS

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Notre Dame Program for Interdisciplinary Educational Research Burns Fellow (2020-Present)  
 Notre Dame Summer Tuition Scholarship (2021/22/23/24)  
 Modern Meta Analysis Research Institute Funded Student (Summer 2022)  
 The College of William and Mary Institutional Honor: *magna cumme laude* (Spring 2020)  
 The College of William and Mary Dean's List (2016, 2018, 2019)

## TECHNICAL STRENGTHS

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| Programming Languages | R, Python, SQL, SPSS                             |
| Markup Languages      | L <sup>A</sup> T <sub>E</sub> X, Rmarkdown, HTML |
| System Administration | Debian GNU/Linux                                 |
| Large Datasets        | PISA, GSS  |
| Languages             | English (Fluent), Chinese (Native)               |

## PROFESSIONAL MEMBERSHIPS

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National Council on Measurement in Education  
 American Educational Research Association  
 Midwestern Psychological Association  
 Psi Chi International Honors Society in Psychology  
 Modern Meta Analysis Research Institute  
 The Erdős Institute