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10+ years of strong statistical analysis and research experience in statistical analytics, modeling, data science, psychometric measurement, project management, and program evaluation. Proficient with R, SAS, Python, SQL, SPSS and related software packages.

## TECHNICAL SKILLS

- ## EDUCATION

**Ph.D., Educational Statistics, Psychometrics, and Methodology**, August 2012  
University of Florida

**M.Ed., Statistics, Research, Measurement, and Evaluation**, May 2007  
Boston College

**B.S., Computer Science**, June 2001  
Chengdu University of Technology

Research Scientist,  
Psychometrics Service, Pearson

## March 2017 to Present

- 1 of 3

- Assist and technical support in the process of data quality assurance, data cleaning and curation, data visualisation, and data production

**Psychometrician II, Team leader, August 2012 to February 2017**  
**Clinical Assessment Department, Pearson**

- Designed and developed automated scoring and text mining algorithm and implemented into scoring module of digital assessment platform - **Q-interactive**
- Developed statistical model and scopes to examine the validity and reliability of the psychological/behavior measurement products
- Evaluated and interpreted the statistical and psychometric analysis results for the internal stakeholders and research development
- Authored technical documentations and statistical reports for the Pearson measurement projects
- Technical and statistical lead for the innovative voice recognition & automated scoring project and won the "Best Clinical Application" Award at 2015 Pearson Technology Hackathon Competition (**Presentation & Demo**)
- Motored and supervised psychometric teams including guiding psychometrician and statistical analysts in completing assignments and building up necessary statistical analysis and modeling techniques

**Statistical Consultant, November 2008 to July 2012**  
**Assessment and Program Evaluation Services, University of Florida**

- Worked closely with project operators in the construction of evaluation plans and monitored evaluation process
- Assist in establishing, monitoring, evaluating, developing and implementing strategies for all aspects of project evaluation
- Designed and developed online survey instruments through **qualtrics** for NSF program evaluation
- Compiled, cleaned, and analyzed quantitative/qualitative survey data for further analysis
- Perform Portfolio Management campaign tracking and analysis
- Developed& wrote summary reports of data analysis for multiple stakeholder audiences and program staff

SELECTED  
PUBLICATIONS  
AND CONFERENCE  
PRESENTATIONS

Chen, H., **Zhang, O.**, (2015, April). Factor invariance between genders on the Wechsler Intelligence Scale for Children??Fifth Edition. *Personality and Individual Differences* 86 (2015), 1??-5. DOI: 10.1016/j.paid.2015.05.020.

**Zhang, O.**, Miller, J., (2015, April). *Cross-Cultural Measurement Equivalence of the WISC5*. Paper accepted and presented at the annual convention of the American Psychological Association, Toronto, Ontario.

**Zhang, O.**, (2013, April). *Observed Score and True Score Equating for Multidimensional Item Response Theory under Nonequivalent Anchor Test Design*. Paper accepted and presented at the annual meeting of the National Council on Measurement in Education, San Francisco, CA.

**Zhang, O.**, DePascale, C., & Miller, D. (2011, April). *How Subgroup Characteristics Effect Equating Methods' Academic Growth Detection?* Paper presented at the annual meeting of the National Council of Educational Measurement annual meeting, New Orleans, LA.

**Zhang, O.**, & Miller, D. (2011, April). *A Model Evaluation When Association Exists Between Testlets under Small Testlet Size Situations*. Paper presented at the annual

meeting of the National Council of Educational Measurement annual meeting, New Orleans, LA.

MacInnes, J., Miller, D., **Zhang, O.** (2011, April). *Detecting Differential Item Functioning in Polytomously Scored Items: A Multilevel Approach to the Generalized Mantel-Haenszel*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.

**Zhang, O.**, Shen, L., Cannady, M. (2010, April). *Polytomous IRT or Testlet Model: An Evaluation of Scoring Models under Small Testlet Size Situation*. Paper presented at The 15th International Objective Measurement Workshop (IOMW), Boulder, CO.

**Zhang, O.**, & Leite, W., (2009, April). *Evaluating the Effect of Reliability Changes Across Time on the Trait-State-Occasion Model*. Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA.

Underhill, J.L., Leite, W., **Zhang, O.** (2009, April). *Effect of Misspecification of Growth Trajectory on Class Identification in Growth Mixture Models*. Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA.

TECHNICAL  
REPORT

**Zhang, O.**, (2018). Polynomial regression model evaluation and selection for psychological test norming Psychometrics Service, Pearson, Inc.

**Zhang, O.**, (2018). The art of readable code: simple and practical techniques for writing better code. Psychometrics Service, Pearson, Inc.

Daniel, M., **Zhang, O.**, (2014). Equivalence of Q-interactive and Paper Admission of Cognitive Tasks: WISC-V. NCS Pearson, Inc.

**Zhang, O.**, & MacInnes, J., (2011). Using R to control HLM 6.0 in Simulation Study. Educational Research, Evaluation, Methodology Program at the University of Florida

AD HOC  
REVIEWER

- Annual meetings of the National Council on Measurement in Education
- Annual meetings of the American Psychological Association (APA)
- Annual meetings of the American Educational Research Association

PROFESSIONAL  
AFFILIATIONS

- American Statistical Association (ASA)
- American Psychological Association (APA)
- American Educational Research Association (AERA)
- National Council on Measurement in Education (NCME)
- Psychometric Society
- International Association for Computerized Adaptive Testing (IACAT)