RichNieto

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🖥 Personal site

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🏠 Austin, TX

Specialties

- predictive modeling
- causal inference
- probabilistic modeling
- machine learning
- longitudinal data
- data visualization

Skills

Expert

- R
- LATEX
- JAGS
- Stata

Operational

- Stan
- Python
- Git
- SQL

Summary

A creative and energetic graduate student with 8 years of experience deriving meaning from data. Proven ability to synergize data analytic and statistical research skills to provide rigorous and nuanced solutions. Passionate about effective communication of data through visualization and reporting to improve data-driven decision making.

Education

2015–Present	**Ph.D.** candidate in Quantitative Methods *Expected graduation May 2019*	The University of Texas at Austin
2013–2015	**M.Ed.** in Quantitative Methods	The University of Texas at Austin
2006–2009	**B.S.** in Psychology	The University of Texas at Austin

Awards and Recognition

- H. Paul and Decourcy Kelley Endowed Fellowship in Psychometrics, 2017
- Alexander Caswell Ellis Fellowship in Education, 2016 & 2015
- Texas New Scholar Award for Doctoral Students, 2015
- Texas New Scholar Award for Masters Students, 2013

Research and Work Experience

Graduate Research Assistant The University of Texas at Austin | CAPR
2018-Present

- Design and execute a simulation study exploring a newly proposed procedure for obtaining more reliable estimates from subscores derived from bi-factor item response theory models
- Develop JAGS and R code to conduct study

Graduate Research Assistant The University of Texas at Austin | HABLA Lab
2016-2018

- Developed and executed data analytic strategies for researchers working on several multimillion-dollar NIH research projects
- Built regression models, and communicated results to a diverse audience
- Wrote analytic sections and developed R::ggplot2-based graphics for journal articles
- Developed and managed a plan to clean and integrate 10 years worth of messy data spanning over a million rows
- Minimized team workload by automating routine data-related tasks via programs written in R

Technical Research Assistant   Carnegie Mellon University
2017-2018

- Developed a new fully Bayesian method for the analysis of ratings data
- Conducted a simulation study to experimentally evaluate its performance in terms of bias, accuracy and precision
- Implemented massively parallelized MCMC via R and JAGS on a supercomputer

Graduate Research Assistant   The University of Texas at Austin | MoRRE Group
2014-2016

- Analyzed results from simulation studies aimed at developing a family of models for analyzing ratings data
- Co-authored journal articles and presented original research at national conferences
- Co-developed and taught a full-day workshop on Bayesian modeling of these models at a national conference

Research Project Coordinator   Northwestern University | MAPS Study
2011-2013

- Independently coordinated and monitored recruitment & retention of over 2,500 families participating in a multimillion-dollar NIH research study
- Developed SQL queries to analyze participation rates, and created reports for researchers
- Developed and monitored performance measures to evaluate recruitment/retention milestones

Publications, Presentations & Works-In-Progress

Nieto, R., Casabianca, J.M., & Junker, B.W. In submission. Accounting for rater effects using the hierarchical rater model when scoring simple structured constructed response tests. *Multivariate Behavioral Research*.

Casabianca, J.M., & **Nieto, R.** (2018, August). Scoring Multidimensional Constructed Response Assessments with the Hierarchical Rater Model. Poster to be presented at the 126th Annual Convention of the American Psychological Association, Division 5: Evaluation, Measurement and Statistics, San Francisco, California.

Bedore, L.M., Pena, E.D., Anaya, J.B., **Nieto, R.**, Lugos-Neris, M.J., & Baron, A. (2018). Understanding disorder within variation: Production of English grammatical forms by English language learners. *Language, Speech, and Hearing Services in School*, *49*, 277-291.

Casabianca, J.M., Junker, B.W., **Nieto, R.**, & Bond, M.A. (2017). A hierarchical rater model for longitudinal data. *Multivariate Behavioral Research*, *52*(5), 576-592.

Nieto, R., Casabianca, J.M., & Junker, B.W. (2016, April). The hierarchical rater model for multidimensional rubrics. Paper presented at the annual meeting of the National Council on Measurement in Education. Washington, DC.

Grasso, D.J., Henry, D., Kestler, J., **Nieto, R.**, Wakschlag, L.S., & Briggs-Gowan, M.J. (2015). Harsh parenting as a potential mediator of the association between intimate partner violence and child disruptive behavior in families with young children. *Journal of Interpersonal Violence*, *31*(11), 2102-2126.