

Nick Woolsey, Ph.D.

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Professional Profile

Dr. Woolsey provides statistical consulting services related to data analysis, statistical modelling, and data visualization. He has experience with regression, measurement error, Bayesian statistics, survival analysis, neural networks, and machine learning. He leverages these skills to solve problems in biopharmaceuticals, public health, warranty analysis, and environmental data.

Dr. Woolsey's consulting approach integrates a mixture of novel and classical statistical methods, such as likelihood inference, time series analysis, classification methods, kernel-based nonparametric methods, bootstrapping, Bayesian methods, and general robust statistics. These methods allow for a wide array of solutions that are not only effective but also interpretable, and lead to an understanding of underlying causes. Further, he utilizes statistical software such as R, SAS, Python, MATLAB, and Weibull++ to enact these methods and create illustrative data visualization.

Before joining Exponent, Dr. Woolsey attended the University of South Carolina, where he served as a graduate assistant in the department of Statistics. His thesis centered on modelling atypical data, specifically data which could be periodic, noisy, or heavily skewed, and applying those models foot traffic data.

Academic Credentials & Professional Honors

Ph.D., Statistics, University of South Carolina, 2025

M.S., Applied Mathematics, California State University, Northridge, 2020

B.S., Mathematics, California State University, Northridge, 2017

James D. Lynch Graduate Student Research Award, University of South Carolina. 2024.

Publications

Woolsey N, Huang X. [Debiased inference in errors-in-variables problems with non-gaussian measurement error](#). Annals of the Institute of Statistical Mathematics 2026.

Al-Sharadqah A, Nusierat O, Woolsey N. [On estimation in linear relationships with heteroscedastic measurement errors](#). Communications in Statistics – Simulation and Computation 2025; 1–27.

Woolsey N, Huang X. [Nonparametric regression for a circular response with error in covariate](#). The Electronic Journal of Statistics 2025; 19:4575–4636.

Al-Sharadqah A, Woolsey N. [Simply linear functional errors-in-variables models with correlated errors](#).

Journal of Statistical Computation and Simulation 2024; 94(3)642–663.

Al-Sharadqah A, Woolsey N. [A new perspective in functional eiv linear models: part II](#). Communications in Statistics 2021; 50(4):856–873.

Presentations

Woolsey N. A new perspective in functional EIV linear models. Oral Presentation, Emerging Data Science Methods Workshop, Augusta University, Georgia, 2021.

Woolsey N. Nonparametric regression for circular responses with errors-in-covariates. Oral Presentation, South Carolina Statistics Association 50th Annual Symposium, University of South Carolina, Columbia, South Carolina, 2024.

Woolsey N. Debiased inference in errors-in-variables problems with non-gaussian measurement error. Eastern North American Region Biometric Conference, Baltimore, Maryland, 2024.