

Hunter Privett, Ph.D.

Scientist | Data Sciences

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Professional Profile

Dr. Hunter Privett is a statistician with more than five years of experience in applying statistics and machine learning techniques in scientific and engineering contexts. He has worked on cross-disciplinary projects including data analysis and statistical consultation within water and wastewater treatment, climate modeling, process manufacturing, cancer survival and clinical trial analysis, sensor calibration, and online fault detection.

Dr. Privett has worked with a multitude of data types including both large datasets and small experimental studies, including work in the domains of weather, finance, text, real estate, education, biostatistics, public health, and video game data. He has experience in statistical methods including regression, classification, supervised/unsupervised machine learning, random forests, support vector machines, neural networks, hypothesis testing, time series, spatial kriging, Bayesian parametric estimation and hierarchical modeling, trial design, power and sample size estimation, messy data cleaning and analysis, web scraping, statistical imputation, and non-parametric approaches to inference, estimation and modeling. Specific areas of expertise include:

- **Statistical Process Control:** Using optimized Phase I/II control charts and changepoint detection for online monitoring.
- **Functional Data Analysis:** Incorporating cyclical behavior of data for analysis, modeling, and anomaly detection.
- **Robust Analysis:** Utilizing methods that optimize statistical power in settings where outlying, faulty, or otherwise messy data is common.
- **Experimental Design:** Developing efficient, adaptive approaches to experiment structure.

Dr. Privett holds M.S. and Ph.D. degrees in Statistical Science from Baylor University. As an undergraduate, he became interested in the use of statistical modeling to provide practical results during a summer data science internship. Since then, Dr. Privett has been working to communicate statistical ideas to non-statistical audiences, both introducing statistics to college students and performing research with a team of engineers. His dissertation research focused on anomaly detection in functional data within the domain of water treatment.

Academic Credentials & Professional Honors

Ph.D., Statistics, Baylor University, 2026

M.S., Statistics, Baylor University, 2022

B.S., Applied Mathematics, Baylor University, 2021

Professional Affiliations

American Statistical Association (ASA)

Publications

Privett H, Cath TY, Hering AS. Simulating cyclical behavior in water and wastewater treatment processes. Discover Water 2026. Accepted.

Presentations

Privett H. Monitoring functional anomalies in cyclical water treatment processes. Fall Technical Conference, Sugar Land, Texas, 2025.

Privett H. Simulating cyclical behavior in water and wastewater treatment processes. Zorich's Reliability Workshop, Texas A&M University, College Station, Texas, 2024.