Taylor Grimm

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Education

Baylor University — Waco, TX
Ph.D. in Statistics, Concentrations in Data Science and Biostatistics — Jul. 2021 – 2025 (Expected)
Advisor: Dr. Amanda Hering
Dissertation:

Baylor University — Waco, TX
M.S. in Statistics, GPA: 3.94/4.00 — Jul. 2021 – Dec. 2022

Brigham Young University — Provo, UT
B.S. in Statistical Science, minor in Mathematics, GPA: 3.99/4.00 — Aug. 2018 – Apr. 2021

Experience

Baylor University — Waco, TX
Graduate Assistant - Research — Jul. 2022 - Present

- Building upon existing multivariate statistical process control methods to improve fault detection in complex processes.
- Developed interactive R Shiny applications to assist in exploratory data analysis of multiple variables across several datasets.

Graduate Assistant - Statistical Consulting — Jan. 2022 – Jul. 2022

- Assisted clients across various disciplines in answering questions of interest using data.
- Adapted to different problems by studying and applying a variety of statistical methods to produce quality reports and insights.

Graduate Assistant - Data Science Workshop Development — Aug. 2021 – Dec. 2021

- Assisted in the development of a data science workshop (using R) for water/wastewater treatment industry professionals.
- Created practice problems and solutions for various topics ranging from data wrangling and visualization to statistical and machine learning models.

Brigham Young University — Provo, UT
Statistics Research Assistant — Jun. 2020 – May 2021

- Built and used Bayesian multivariate receptor models (using R and Stan) to analyze and understand noisy environmental data.
- Produced useful visualizations with the ggplot2 and ggmap packages in R.
- Read dozens of relevant publications and research papers to glean information for research.
- Regularly communicated and discussed results and findings.

Peer-Reviewed Publications

[1] M. Heiner, **T. Grimm**, H. Smith, S. D. Leavitt, W. F. Christensen, G. T. Carling, and L. L. St. Clair, "Multivariate receptor modeling with widely dispersed lichens as bioindicators of air quality", *Environmetrics*, vol. 34, no. 3, e2785, 2023. DOI: https://doi.org/10.1002/env.2785.

Research Experience and Interests

- Multivariate statistics
- Time series
- Machine learning

Presentations

- Student Research Conference: *Bayesian Multivariate Receptor Modeling with Lichens as Biomonitors*, Brigham Young University, Provo, UT. (February 2021)
- Southern Regional Council on Statistics: *Nonparametric Threshold Estimation of Autocorrelated Statistics in Multivariate Statistical Process Monitoring*, Baylor University, Waco, TX. (June 2023) †

† : poster

Computer Skills

- **Advanced:** R
  - tidyverse (dplyr, ggplot2, etc.), Keras (TensorFlow), RMarkdown, rstan, rjags
- **Proficient:** LaTeX, Git/GitHub
- **Working Knowledge:** SAS, Python
  - pandas, numpy, scikit-learn

Languages

- **English:** Native
- **Tagalog:** Advanced

Scholarships and Awards

- Outstanding 1st Year PhD Student (Department of Statistical Science, Baylor University) 2021–2022
- Graduate School Fellowship (Baylor University) 2021
- Academic Scholarship — Brigham Young and Wessell/Marshall Memorial (Brigham Young University) 2018–2021
- Eagle Scout (Boy Scouts of America) 2015