

Connor Brubaker

College Station, TX

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Summary

Ph.D. candidate in statistics with expertise in time series analysis, spatial statistics, and machine learning and strong proficiency in R and Python. Thrives in interdisciplinary collaborative environments aimed at solving complex problems and seeks a role in designing well-crafted statistical solutions for automation and discovery.

Education

Texas A&M University <i>Ph.D. in Statistics</i>	College Station, Texas 2025
The University of Texas at Austin <i>B.S. in Mathematics</i>	Austin, Texas 2019

Experience

Liberty Mutual Insurance <i>Data Science Intern</i>	Boston, MA <i>Jun. 2022 - Aug. 2022</i>
<ul style="list-style-type: none">○ Restructured and performed morphological and syntactic analysis on large, annotated text corpora using R and Python.○ Designed and validated hierarchical machine learning models based on transformers for automatic underwriting risk segmentation.	
Applied Research Laboratories <i>Engineering Research Associate</i>	Austin, TX <i>Dec. 2019 - Jul. 2020</i>
<ul style="list-style-type: none">○ Adapted existing Python code for online object tracking in TensorFlow for tracking objects in sonar images.○ Developed and trained convolutional neural network-based models for dimensionality reduction and clustering of image data.○ Developed educational materials for an internal course on machine learning.	
Alerian <i>Data Intern</i>	Dallas, TX <i>May 2019 - Aug. 2019</i>
<ul style="list-style-type: none">○ Developed automated reporting and backtesting processes in Visual Basic, enhancing accuracy and significantly reducing time costs.○ Applied time series forecasting and causal inference to evaluate the impact of marketing budget changes on website traffic and sales.	

Publications

Connor Brubaker and Scott Bruce. Time-varying frequency band analysis for multiple nonstationary time series. *In Preparation*, 2025.

Connor Brubaker, Jack Manning, Jennifer Yentes, and Scott Bruce. Frequency band analysis for multiple stationary time series. *In Preparation*, 2024.

Dakota Doucet, Connor Brubaker, Donald Turner, and Carl A Gregory. Factors affecting the role of canonical wnt inhibitor dickkopf-1 in cancer progression. *Frontiers in Oncology*, 13:1114822, 2023.

Collaborative Projects

Survey Analysis of K-12 Teacher Sentiment Towards AI in Education <i>Collaboration with the Department of Geology & Geophysics at Texas A&M</i>	2024
Automatic Storm Track Identification via Spatiotemporal Regionalization of Weather Data <i>Collaboration with the Department of Atmospheric, Oceanic & Earth Sciences at George Mason University</i>	2024
Quasi-Poisson Regression Analysis of Fly Production Data <i>Collaboration with the Department of Entomology at Texas A&M</i>	2024
Cluster Analysis of EOG Measurements for the Detection of Fatigue <i>Collaboration with the Department of Industrial & Systems Engineering at Texas A&M</i>	2024

Analysis of Home Range and Ecological Needs of the Western Chicken Turtle

Collaboration with the Natural Resources Institute at Texas A&M

2023

Meta-Analysis on the Link between Tissue Origin and Role of Dkk-1 in Cancer Progression

Collaboration with the College of Medicine at Texas A&M

2022

Teaching

- Instructor for STAT 211, Principles of Statistics I. Spring 2022.
- Instructor for STAT 302, Statistical Methods. Fall 2021.
- TA for STAT 673, Time Series Analysis I. Fall 2024.
- TA for STAT 652, Statistics in Research II. Summer 2021.
- TA for STAT 611, Theory of Statistical Inference. Spring 2021.
- TA for STAT 608, Regression Analysis. Fall 2020.

Presentations

Joint Statistical Meetings 2024

Contributed Talk

Portland, OR

August 2024

Joint Statistical Meetings 2023

Contributed Talk

Toronto, ON, CA

August 2023

SRCOS Summer Research Conference

Poster

Waco, TX

June 2023

SETCASA Poster Competition

Poster

College Station, TX

May 2023

Awards & Recognition

SRCOS Summer Research Conference

Travel Award

Waco, TX

2023

SETCASA Poster Competition

Silver Award

College Station, TX

2023

Texas A&M University

Nominated for College of Science Award for Outstanding Achievement in Graduate Teaching

College Station, TX

2022

Service

ASA DataFest at Southern Methodist University

Guest Lecturer

Dallas, TX

April 2024

Department of Statistics Data Science Summer Camp

Volunteer Instructor

College Station, TX

June 2023

Professional Organizations

- American Statistical Association
- International Chinese Statistical Association
- American Guild of Organists

Skills

Software: R, Python, TensorFlow, PyTorch, C++, SQL, Shell, Docker

Statistical: Time series analysis, regression analysis, spatial statistics, machine learning, natural language processing, cluster analysis, Bayesian methodology