Noah D. Gade

Assistant Professor of Statistics
Department of Mathematics and Statistics
University of Central Oklahoma

College of Mathematics and Science
100 N University Drive
Math and Computer Science Bldg, Room 108
Edmond, OK 73034

Office: STEM 210
Email: ngade@uco.edu
Website: www.ndgade.com
GitHub: github.com/ndgade
ORCID: orcid.org/0000-0002-2541-5363
Scholar: scholar.google.com/ndgade

Employment

University of Central Oklahoma (Edmond, OK)
- Assistant Professor, Department of Mathematics and Statistics 2026 – Present

Wake Forest University (Winston-Salem, NC)
- Assistant Professor, Department of Statistical Sciences 2024 – 2026
- Faculty Affiliate, Neuroscience and Society Initiative 2024 – 2026

University of Virginia (Charlottesville, VA)
- Doctoral Fellow, Department of Statistics 2019 – 2024
- Graduate Teaching Assistant, Department of Statistics 2023 – 2024
- Graduate Instructor, Department of Statistics 2020 – 2022

Oklahoma State University (Stillwater, OK)
- Graduate Research & Teaching Assistant, Department of Finance 2017 – 2019
- Mathematics Tutor, Math Learning Success Center 2018 – 2019
- Undergraduate Researcher, Department of Chemical Engineering 2017
- Teaching Assistant, Department of Chemistry 2015 – 2016

Flint Hills Resources (Wichita, KS)
- Business Analyst Intern 2018

Education

Ph.D. Statistics, University of Virginia 2024
- *Model Agnostic Methods for Multivariate Time Series with Arbitrary Dependence*
- URL: `https://doi.org/10.18130/65be-5g73`
- Advisor: Jordan Rodu, Ph.D.
- Committee: Leland Farmer, Ph.D.; Xiwei Tang, Ph.D.; Shan Yu, Ph.D.

M.S. Quantitative Financial Economics, Oklahoma State University 2019

B.S. Chemical Engineering, Oklahoma State University 2017

Research

Research Interests

Nonstationary time series, statistical machine learning, representation learning, and dynamic functional connectivity with applications in economics, finance, neuroscience, meteorology, and sports statistics.

Submitted Manuscripts

3. Gade, N.D. and J. Rodu (2026+). Change Point Detection with Conceptors.
2. Nikolaishvili, G. and N.D. Gade (2026+). Scanning for Significance: False Discovery Control for Impulse Responses.

Peer-Reviewed Publications

1. Gade, N.D. and J. Rodu (2026). Nonlinear Permuted Granger Causality. *Canadian Journal of Statistics*, e70056. URL: `https://doi.org/10.1002/cjs.70056`.

Working Papers

5. Nikolaishvili, G. and N.D. Gade (2026+). Propagation Importance in Impulse Response Functions: A State-Knockout Approach.
4. Gade, N.D. (2026+). Generalized Change Point Detection and Temporal Regime Identification.
3. Nikolaishvili, G. and N.D. Gade (2026+). Impulse Response Inference under a Stochastic Null.
2. Gade, N.D. (2026+). Flexible Model-Based Change Point Detection with Reservoir Computing.
1. Gade, N.D. (2026+). Similarity-Based Partial Rank Aggregation with Applications to Individual Sports.

Presentations

13. Invited seminar (presented by G. Nikolaishvili), *Scanning for Significance: False Discovery Control for Impulse Responses*. Tbilisi State University, International School of Economics. Tbilisi, Georgia (Jun. 2026).
12. Invited presentation, *Segmentation in Dynamic Neuroimaging via Random Featurizations*. Statistical Methods in Imaging Conference. Ann Arbor, MI (Jun. 2026).

11. Contributed presentation (presented by G. Nikolaishvili), *Scanning for Significance: False Discovery Control for Impulse Responses*. The Rimni Center for Economic Analysis International Conference, Universidad Pontificia de Comillas. Madrid, Spain (May 2026).
10. Invited seminar (presented by G. Nikolaishvili), *Scanning for Significance: False Discovery Control for Impulse Responses*. Triad Applied Macroeconomics Group. Virtual (Mar. 2026).
9. Invited seminar (presented by G. Nikolaishvili), *Scanning for Significance: False Discovery Control for Impulse Responses*. Loyola Marymount University, Second Spring Macroeconomics Workshop. Virtual (Mar. 2026).
8. Invited colloquium, *Segmentation in Dynamic Neuroimaging via Random Featurizations*. University of Central Oklahoma, Department of Mathematics & Statistics. Edmond, OK (Jan. 2026).
7. Invited colloquium, *Random high-dimensional featurizations for segmentation and Granger causal analysis of nonstationary time series*. Wake Forest University, Department of Biostatistics and Data Science. Winston-Salem, NC (Nov. 2025).
6. Refereed presentation, *Permutation-Based Nonlinear Granger Causal Inference*. Symposium on Data Science & Statistics. Salt Lake City, UT (May 2025).
5. Contributed presentation, *Nonlinear Granger Causal Inference*. Joint Statistical Meetings. Portland, OR (Aug. 2024).
4. Invited colloquium, *Characterizing Nonlinear Dependence in Multivariate Time Series*. Wake Forest University, Department of Statistical Sciences. Winston-Salem, NC (Dec. 2023).
3. Invited colloquium, *Characterizing Nonlinear Dependence in Multivariate Time Series*. Miami University (Ohio), Department of Statistics. Oxford, OH (Dec. 2023).
2. Invited colloquium, *Characterizing Nonlinear Dependence in Multivariate Time Series*. Oklahoma State University, Department of Statistics. Stillwater, OK (Nov. 2023).
1. Contributed presentation, *Change Point Detection in Dependent, Multivariate Data With Conceptors*. Joint Statistical Meetings. Toronto, Ontario (Aug. 2023).

Teaching

University of Central Oklahoma

STAT 2103 *Introduction to Statistics for Sciences*: Fall 2026

Wake Forest University

STA 112 *Introduction to Regression and Data Science*: Fall 2024, Spring 2025, Spring

2026

STA 362 *Multivariate Statistics*: Spring 2025, Fall 2025, Spring 2026

STA 368 *Time Series and Forecasting*: Fall 2025

STA 391 *Honors Research I*: Fall 2025

STA 392 *Honors Research II*: Spring 2026

STA 662 *Multivariate Statistics*: Spring 2025, Fall 2025, Spring 2026

STA 668 *Time Series and Forecasting*: Fall 2025

University of Virginia

STAT 1501 *Data Analytics with Python*: Summer 2021

STAT 3110 *Foundations of Statistics*: Fall 2020, Spring 2021, Fall 2021, Spring 2022, Summer 2022

STAT 3280 *Data Visualization and Management*: Fall 2022

Funding & Awards

Internal

3. Robert B. Outland Sr. Fund for Academic Excellence, Wake Forest University 2025
   Amount: $ 960.00
2. Provost's Fund for Faculty Travel, Wake Forest University 2025 – 2026
   Amount: $ 2939.07
1. All-University Graduate Teaching Award, University of Virginia 2022
   Amount: $ 500.00

Student Engagement

Graduate Theses

1. Committee, Mayank Arya (M.S. Statistics, Wake Forest University, 2026). *Core and Periphery Structure in High-Dimensional Euclidean Data and Applications.*

Undergraduate Theses

1. Advisor, Jack Liddicoat (B.S. Statistics, Wake Forest University, 2026). *A Multivariate GARCH(1,1) Analysis of Call Option Trading Volume Dynamics.*

Other

3. Co-Founder and Director, Sports Statistics Research Team (SSTART), Wake Forest

University (2025 - 2026).

2. Faculty Mentor, ASA DataFest, Wake Forest University (2025).

1. Seminar, *Bayesian versus frequentist statistics*, Wake Forest University, Math & Stats Center, Coffee with Profs (Sep. 2024).

Service & Professional Development

University of Central Oklahoma

External Service

2. Chair, contributed paper session, *Statistical Methods for High-Dimensional Data*. Joint Statistical Meetings, Nashville, Tennessee (Aug. 2025).

1. Chair, contributed paper session, *Generative Models and Transfer Learning*. Joint Statistical Meetings, Portland, Oregon (Aug. 2024).

Previous Institutions

6. Advisor, Minor in Statistics, Wake Forest University, Department of Statistical Sciences (2025 – 2026).

5. Member, Tenure-Track Hiring Committee, Wake Forest University, Department of Statistical Sciences (2025 – 2026).

4. Member, Graduate Committee, Wake Forest University, Department of Statistical Sciences (2024 – 2026).

3. Member, Colloquium Committee, Wake Forest University, Department of Statistical Sciences (2024 – 2025).

2. Vice President, Graduate Student Association, University of Virginia, Department of Statistics (2022 – 2024).

1. Elected Representative, Graduate Student Council, University of Virginia, College of Arts & Sciences (2021 – 2024).

Professional Development

1. CULTIVATE Grant Development Program, Wake Forest University (2025 – 2026).

Journal Referee

Journal of Applied Statistics

Professional Memberships

American Statistical Association
North Carolina Chapter
Section on Statistical Learning and Data Science

Section on Statistics in Sports

Institute of Mathematical Statistics

Bernoulli Society