Emily Kurtz

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Education

Ph.D. Political Science, University of Minnesota, Spring 2025 Expected.

Major Fields: American Politics, Political Methodology

Minor Field: Population Studies

Committee: Jane L. Sumner, Paul Goren, Andrew Karch, Josef Woldense.

M.S. Statistics, University of Minnesota, 2022.

Thesis: "The partyvoter Package: Simulating and Visualizing Ideological and Partisan Voting"

B.A. Mathematics and Environmental Studies, Wellesley College, 2015.

Publications

Straw, C. M., Principe, F. M., **Kurtz, E. L.**, Wiese-Bjornstal, D. M., & Horgan, B. P. (2020). Within-field variability of turfgrass surface properties and athlete performance: Modeling their relationship using GPS and GIS technologies. *Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology*, 234(2), 170-175.

Godbole, A., Kelley, E., **Kurtz, E.**, Prałat, P., & Zhang, Y. (2017). The total acquisition number of the randomly weighted path. *Discussiones Mathematicae Graph Theory*, 37(4), 919-934.

Selected Grants, Honors, and Awards

Ornstein Fellowship in American Politics, Summer 2023

University of Minnesota Graduate Research Partnership Program Fellowship, Summer 2021 & Summer 2022

Data Science for the Public Good Graduate Fellowship, Summer 2021

Claggett Fellowship, Summer 2021

Bernard W. Lindgren Award for Excellence in Teaching, Spring 2018

Lynn Lin Fellowship for Statistical Consulting, Spring 2018

University of Minnesota Statistics PhD First Year Scholarship, Fall 2017

Conference Presentations

"Cortisol and Obama-Trump Voting: The Link between Chronic Stress and 'Risky' Candidates," presented at the Midwest Political Science Association Annual Conference, Chicago, 2023.

"Gray Code Distance 2 Graphs" presented at the Joint Mathematics Meetings, San Antonio, 2015.

Tools and Packages

partyvoter. 2022. https://marekjozsef.shinyapps.io/partyvoter/

Allows users to visualize spatial voting in multiple dimensions, in multiparty systems, and with varying party loyalty and political information among voters.

Teaching

University of Minnesota (as Lead Instructor)

POL 3085: Quantitative Analysis in Political Science, Summer 2023.

University of Minnesota (as Lab Instructor)

STAT 3032: Regression and Correlated Data, Spring 2020.

STAT 5032: Applied Regression Analysis, Fall 2019.

STAT 4101/5101: Theory of Statistics I, Summer 2019.

STAT 3701: Introduction to Statistical Computing, Fall 2018.

STAT 3021: Introduction to Probability and Statistics, Spring 2018.

STAT 3011: Introduction to Statistical Analysis, Fall 2017.

University of Minnesota (as Teaching Assistant)

POL 3321: Issues in American Public Policy, Spring 2022.

POL 1001: American Democracy in a Changing World, Fall 2021.

Research

Minnesota Population Center (as Graduate Research Assistant):

Short Term Research Assistant, Summer 2022-Spring 2023.
Performed data analysis tasks for various PIs on projects related to population studies. Work for each project lasted 4 weeks, and tasks included collection, cleaning, automation of processes, statistical analysis, and data set creation for the IPUMS data base.

University of Virginia Biocomplexity Institute (as Graduate Student Fellow):

Data Science for the Public Good Graduate Student Fellow, Summer 2021-Spring 2022
Worked with teams of faculty and undergraduate students on two data science projects with benefits to the public. Studied occupations in the Skilled Technical Workforce and their benefits to economic mobility in the United States. Also studied the role data repositories play in data sharing and their benefits to the scientific community and society as a whole.

Institute for Research in Statistics and its Applications (as Graduate Research Assistant):

Graduate Research Consultant, Summer 2018-Spring 2019.
Aided student and faculty researchers on campus and in private organizations with the statistical components of their work. Employed classical statistics and machine learning techniques in R and Stata. Worked with teams in fields ranging from languages to earth sciences and medicine.

Service

Justice, University of Minnesota Council of Graduate Students, 2023-Present.

Director of Internal Relations, University of Minnesota Council of Graduate Students, 2022-2023.

Representative to the Board of Regents, University of Minnesota Council of Graduate Students, 2021-2022.

Organizer, University of Minnesota American Politics Colloquium, 2021-Present.

Graduate Student Senator, University of Minnesota Senate, 2020-2022.

Software and Programming Proficiencies

R, Github, Shiny, Microsoft Office, Stata, LaTeX

Last updated: June 10, 2023