

Sean Bock

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EDUCATION

- Harvard University** Cambridge, MA
Ph.D., Sociology Expected 2023
- Dissertation: *“Rethinking Polarization: A multi-level approach to the study of political disagreement”*
 - *Institute for Quantitative Social Science, Graduate Student Affiliate*
 - *Harvard Center for Population and Development Studies, Graduate Student Affiliate*
- A.M., Sociology 2020
- Indiana University** Bloomington, IN
B.A., Sociology and Political Science 2016
- *Highest Distinction, Phi Beta Kappa, Honors in Sociology*

SELECTED DATA SCIENCE/ANALYTICS PROJECTS

- *Golf Simulator App*
 - Designed web scraping program to collect original sample of data on 2 million amateur golf rounds from the United States Golf Association’s GHIN website
 - Developed R Shiny [web application](#) to predict outcomes in amateur golf matches using simulations
 - Communicated app design and development to non-technical audience in [article](#) published on GOLF.com
- *kmodesFlow package*
 - Constructed [R package](#) to improve analytical workflow when implementing unsupervised machine learning models (kmodes)
 - Enhanced client’s project efficiency by streamlining modeling tasks and creating automated visualizations to communicate insights
- *Political Speech N-gram Viewer*
 - Created R Shiny [web application](#) to allow non-technical users to easily search and visualize trends in word usage by U.S. presidential candidates in stump speeches
 - Developed accompanying R package ([speechesr](#)) containing cleaned text data to facilitate future analyses

RESEARCH EXPERIENCE

- Harvard University Department of Sociology** Cambridge, MA
PhD Researcher 2017-Present
- Designed, managed, and executed all aspects of 5 large-scale research projects using R and Stata
 - Analyzed large longitudinal and cross-national surveys using advanced statistical techniques, including multi-variate regressions, cluster analysis, machine learning, and natural language processing
 - Communicated insights to different audiences in 6 first- and co-authored publications in top peer-reviewed journals, a non-technical article published in the [Washington Post](#), presentations at national conferences, and interviews at media outlets
- Washington University in St. Louis** St. Louis, MO (Remote)
Research/Data Science Consultant 2022-Present
- Consulted clients on research and data analysis strategies
 - Constructed tailored R package to improve research workstreams

Harvard University Department of Sociology Cambridge, MA

Research Assistant

2017-2021

- Led team of research assistants on data cleaning, analysis, synthesis, and organization tasks
- Extracted insights from survey and text data using unsupervised machine learning, regression, GLM, factor analysis, and other statistical techniques using R, Stata, and Latent Gold
- Constructed intuitive data visualizations to convert research and data analysis into clear narratives
- Managed large collaborative projects using version control (Git) and automated reporting with *R Markdown*

LEADERSHIP/TEAMWORK EXPERIENCE

New York University

New York, NY (Remote)

Teaching Assistant, *Introduction to Computational Text Analysis*

2022

- Assisted in teaching over 30 NYU graduate students on text mining (natural language processing) methods using R
- Developed and conducted weekly 1-hour coding demos on topics including: Machine learning, topic modeling, networks, web scraping, and visualization
- Led weekly lab meetings and consulted students on coding assignments and research projects

Harvard University Department of Sociology

Cambridge, MA

Teaching Fellow

2019-2022

- Assisted in teaching 4 Harvard undergraduate courses. Topics included: Social determinates of health and health inequities, Research methods, and Political sociology
- Prepared course materials, including lectures, exams, homework, and practice problems
- Led weekly discussion sections for groups of 10-20 students
- Awarded the *Certificate of Distinction in Teaching* from Harvard's Derek Bok Center

Harvard University Department of Sociology

Cambridge, MA

Senior Thesis Adviser

2020 – 2021

- Supervised and mentored an undergraduate sociology major in planning, executing, and writing an original thesis on Twitter discourse using Python
- Winner of the Harvard *Hoopes Prize*, awarded to undergraduates for outstanding scholarly work or research

Harvard University Department of Sociology

Cambridge, MA

Quantitative Advisor

2020 – 2021

- Provided statistical and technical consultation to graduate and undergraduate students
- Advised students on connecting research questions with appropriate analytical methods
- Assisted with coding in R and Stata

SKILLS

- **Computer:** R, R Shiny, Stata, Python (basic), SQL (basic)
- **Analytical:** data mining, text mining (natural language processing), statistical analysis (regression modeling, machine learning, causal inference), data visualization

PUBLICATIONS AND CONFERENCE PRESENTATIONS

- 3 first-author publications in scientific journals: *PLoS ONE* (2022); *Socius* (2021); *Socius* (2021)
- 3 co-authored publications in scientific journals: *American Journal of Sociology* (2021); *Sociological Science* (2018); *Sociological Science* (2017)
- 2 publications in non-scientific outlets: *GOLF.com* (2022); *Washington Post* (2021)
- 4 presentations at academic conferences and seminars: Social Demography Seminar Series at the Center for Population and Development Studies, Harvard University (2021); Society for the Scientific Study of Religion (2019), The American Sociological Association (2019), Midwest Sociological Society (2016).