

Claire Kelling

ASSISTANT PROFESSOR OF STATISTICS

Carleton College, Northfield, MN

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EDUCATION

Dual PhD in Statistics and Social Data Analytics

Pennsylvania State University

State College, PA

August 2022

Graduate Minor, Computational Sciences

B.S. Statistics, B.A. Economics

Virginia Polytechnic and State University

Blacksburg, VA

May 2016

WORK EXPERIENCE

Assistant Professor

Carleton College

Northfield, MN

Aug 2022 - Present

- Co-Director and Co-Founder of the Data Science, Police Accountability, and Community Engagement (DSPACE) Group (September 2023-Current)
- Co-Director and Co-Founder of the Data/Justice Lab with Sam Gould, Confluence Studio, Minneapolis, MN (2024-Current)
- Director and Founder of the Statistics and Public Policy Lab at Carleton College (2024-Current)

Summer Associate

The RAND Corporation

Pittsburgh, PA

Summer 2019

- Analyzed healthcare data using machine learning methods

Graduate Research Assistant

Center for Social Data Analytics, Penn State

State College, PA

Aug 2018 - May 2020

- Conducted a literature review of and implemented algorithmic bias detection techniques
- Analyzed the role of social media data in the assessment of refugee integration through short text methods

Graduate Research Assistant

Metric Geometry and Gerrymandering Group (MGGG)

Cambridge, MA

June - Aug 2018

- Collected and modeled voting and electoral data to recreate voting districts
- Research partnership between MIT, Harvard, and Tufts

Data Science Contractor

YouGov

Remote

Jan 2018 - Nov 2020

- Developed predictive analyses in R and Python to aid in the prediction of election outcomes

Visiting Scholar

Social and Decision Analytics Lab (SDAL)

Blacksburg, VA

Aug 2017 - Aug 2020

- Continued summer projects as well as new analyses on crime and open-source software
- Results presented by Sallie Keller at the Modeling and Visualizing Science and Technology Developments colloquium

Graduate Research Fellow

Data Science for Public Good, Social and Decision Analytics Lab (SDAL)

Blacksburg, VA

May - July 2017

- Led and managed six independent research projects and undergraduate teams
- Created impact locally and nationally through partnerships with stakeholders

Research Assistant

Office of Sexual Misconduct Prevention & Response, Penn State

State College, PA

Jan 2017 - May 2018

- Determined educational needs based on Office of Civil Rights and Department of Education guidelines

- Created recommendations for target areas

Graduate Fellow

Futures Without Violence, Penn State

State College, PA

June 2016 - May 2019

- Conducted research as the sole fellow with a quantitative focus
- Worked with a cohort of students from diverse fields including medicine, nursing, public health, social work, and international relations

Research Assistant

The Laboratory for Interdisciplinary Statistical Analysis (LISA), Virginia Tech

Blacksburg, VA

Dec 2014 - June 2015

- Documented case studies of LISA's impact on the community
- Substantiated claims that LISA's contributions lead to publications and innovations

PUBLICATIONS

Morton, C. & Kelling, C. (To appear). Towards Community-Based Participatory Statistics Research Using Secondary Data. *The American Statistician*. (<https://doi.org/10.1080/00031305.2026.2634877>)

Haensch, A.* & Kelling, C.* (2025, June). BlockR: An Areal Spatial Anonymization and Visualization Tool. *Transactions in GIS*, 29(4), e70070. (<https://doi.org/10.1111/tgis.70070>)

Kelling, C. (2024, December). Statisticians address analysis of police use of force. *CHANCE*, 37(4):4-5. (<https://doi.org/10.1080/09332480.2024.2434432>)

Kelling, C., Allen, C.*, Brault, E.*, & Matos P.* (2024, December). Issues in the spatial analysis of police use of force data. *CHANCE*, 37(4):11-17. (<https://doi.org/10.1080/09332480.2024.2434436>)

Brault, E., Kelling, C., Wyatt Bourgeois, J., Taheri, S., Jones, A., Charles, C., Belair, K., & Banks, D. (2024, December). Toward standardization of police use of force data. *CHANCE*, 37(4):24-30. (<https://doi.org/10.1080/09332480.2024.2434438>)

Mendible, M. & Kelling, C. (2024, December). Counting on justice bridging quantitative research and community empowerment. *MAA FOCUS*, 44(6):24-27. (<https://digitaleditions.walworthprintgroup.com/publication/?i=836749&p=24&view=issueViewer>)

Kelling, C.*, Haensch, A.*, Mendible, A.*, Brooks, S., Wiedemann, A., Aminian, M., Hasty, W., & Higdon, J. (2024, August). Data Collection and Analysis for Small-Town Policing: Challenges and Recommendations. *Statistics and Public Policy* 11, no. 1: 2379270. (<https://doi.org/10.1080/2330443X.2024.2379270>)

Seto, C., Graif C., Khademi, A., Honavar, V., & Kelling, C. (2022, September). Connected in health: Place-to-place commuting networks and COVID-19 spillovers. *Health & Place*: 102891. (<https://doi.org/10.1016/j.healthplace.2022.102891>)

Kelling, C. & Monroe, B. (2022, August). Analyzing Community Reaction to Refugees through Text Analysis of Social Media Data. *Journal of Ethnic and Migration Studies*. (<https://doi.org/10.1080/1369183X.2022.2100551>)

Kelling, C. & Haran M. (2022, July). A two-stage Cox process model with spatial and nonspatial covariates. *Spatial Statistics*: 100685. (<https://doi.org/10.1016/j.spasta.2022.100685>)

Schutte S. & Kelling, C. (2022, April). A Monte Carlo Analysis of False Inference in Spatial Conflict Event Studies. *PLOS ONE* 17(4): e0266010. (<https://doi.org/10.1371/journal.pone.0266010>)

Kelling, C. (2021, February). Data Analysis Using Statistics. In *Knisely, K. A Student Handbook for Writing in Biology, 6th Edition* (pp. 117-144). Macmillan. Book chapter

Kelling, C., Korkmaz, G., Graif, C., & Haran M. (2020, March). Modeling the Social and Spatial Proximity of Crime: Domestic and Sexual Violence Across Neighborhoods. *Journal of Quantitative Criminology*, 37(2), 481-516. (<https://doi.org/10.1007/s10940-020-09454-w>)

Korkmaz, G., Kelling, C., Robbins C., & Keller S. A. (2020, January). Modeling the Impact of Python and R Packages Using Dependency and Contributor Networks. *Social Networks Analysis and Mining*. (<https://doi.org/10.1007/s13278-019-0619-1>)

Kelling, C. & Lin Y. (2020, January). Analysis of Conflict Diffusion over Continuous Space. *Computational Conflict Research*. Springer Nature. (<https://doi.org/10.1007/978-3-030-29333-8>)

Arnsbarger, M., Goldstein, J., Kelling, C., Korkmaz G., & Keller, S. (2019, December). Spatial Modeling of Response Time to Structure Fire. *The American Statistician*. (<https://doi.org/10.1080/00031305.2019.1695664>)

Robbins, C., Korkmaz, G., Calderón, J., Chen, D., Kelling, C., Shipp, S., & Keller, S. (2018, November). Open Source Software as Intangible Capital: Measuring the Cost and Impact of Free Digital Tools. *IMF Statistical Forum Conference Proceedings*. Conference proceedings (<https://www.imf.org/-/media/files/conferences/2018/6th-stats-forum/session-3carol-robbinsopen-source-software-as-intangible-capitalmeasuring-the-cost-and-impact-of-free.pdf>)

Kelling, C. (2018, December). Channeling the Power of Big Data Towards Social Good: Three Proposals for Progress. *Technology and Governance in the 21st Century; Office of the Tech Ambassador of Denmark*. pp. 29-32. Submitted to UN High-Level Panel on Digital Cooperation

Korkmaz, G., Kelling, C., Robbins C., & Keller S. A. (2018, October). Modeling the Impact of R Packages Using Dependency and Contributor Networks. *2018 IEEE/ACM International Conference on ASONAM, Barcelona, Spain*, pp. 511-514. (<https://doi.org/10.1109/ASONAM.2018.8508255>)

Robbins, C., Korkmaz, G., Calderón, J., Kelling, C., Shipp, S., & Keller, S. (2018, August). The Scope and Impact of Open Source Software: A Framework for Analysis and Preliminary Cost Estimates. *International Association for Research in Income and Wealth (IARIW) 35th General Conference Proceedings*. Conference proceedings (<http://old.iariw.org/copenhagen/robbins.pdf>)

Kelling, C. (2016, February). Bridging Conscious Partiality and Intersectionality through Action Research. *International Women's Issues Conference Selected Proceedings*. Orlando, FL, pp. 127-150. ISBN 978-1-5323-0118-6

Submitted:

A Shared Component Point Process Model for Urban Policing. **Coauthor:** M. Haran.

A Spatial Analysis of the Indian Farmers' Protests. **Coauthor:** M. Khanna.

Tips for Developing and Teaching Community-Engaged Statistics and Data Science Courses. **Coauthors:** L. Baker, T. George, & E. Robinson.

Community-driven data science practices. **Coauthors:** A. Barreda II, C. Diaz Eaton, S. Hansen, J. Hibdon Jr., L. Gordon, R. Greenwald, M. Guti  rrez Paz, K.   nce, A. Mendible, J. Mercado, V. Piercey, B. Thompson.

Exploring the Role of Proximity and Points of Interest in Studying Urban Intimate Partner Violence. **Coauthors:** N. Aldaghlis, C. Charles.

Building a Longitudinal Geospatial Dataset of Micro-businesses in Mexico City. **Coauthors:** I. Farah, H. Zhao, C. Leng.

A Review of Open Data Efforts on Police Use of Force. **Coauthor:** B. Freelin.

In Progress:

Investigation of the Effects of Geocoding and Spatial Jittering on Point Process Inference. **Coauthors:** M. Haran, A. Slavkovic, C. Eldridge, S. Sheridan.

The Spatial Concentration of Sexual Assault in a Deep South City. **Coauthor:** C. Charles.

Future Directions in Statistical Research in the Analysis of Police Use of Force. **Coauthors:** D. Knox, T. Shah, G. Lanzalotto, J. Kaplan, J. Mummolo, G. Ridgeway.

GRANTS

Forecast: A Changing Landscape

\$1,250

Puffin Foundation, 2025-2026 Annual Artist Grant; With Jade Hoyer

Integration of AI Assistants into Introduction to Data Science

\$1,000

Development of Models in Spatial Statistics for Complex Policing and Social Science Applications \$199,708

National Science Foundation, 2023-2025 Grant Number 2316857; Role: Principal Investigator; Program: Launching Early-Career Academic Pathways (LEAPs) in the Mathematical and Physical Sciences

Conference: Ingram Olkin Forum at Carleton College Conference \$20,000

National Science Foundation, 2023-2024 Grant Number 2328509; Role: Principal Investigator; Program: Conferences and Workshops in the Mathematical Sciences; Co-PIs: Dean Knox, Tarak Shah, Greg Lanzalotto

Spatial Characterization of Policing Activity in Ward 9 \$4,000

Carleton College, 2023-2024 Academic Civic Engagement (ACE) Co-Creation Grant; With Confluence Studio

Integrating Data Ethics into the Introductory and Intermediate Statistics Classroom \$8,000

Carleton College, Summer 2023 Ethical Inquiry in the Classroom Grant; With Andy Poppick, Department of Mathematics and Statistics, Carleton College

Collection and Analysis of Open Data for Policing \$4,000

Center for Social Data Analytics, Summer 2021 Accelerator Award; Role: Principal Investigator; Co-PI: Brittany Freelin, Dept of Sociology and Criminology

Advances in Spatial Statistical Methodology for Urban Crime \$60,065

National Institute of Justice, Fall 2020 Graduate Research Fellowship; One of 26 Fellows selected across all disciplines, and the only fellow in statistics

CONFERENCE PRESENTATIONS

Location Data in Law Enforcement: Building Effective and Trusted Practices *Washington DC*
Kelling, C. 10th Annual American Society of Evidence-Based Policing Conference *2026, May*

Tips for Developing and Teaching Community-Engaged Statistics and Data Science Courses *Brisbane, Australia*
Kelling, C., Baker, L., George, T., Robinson, E. 12th International Conference on Teaching Statistics *2026, July*

Addressing Unethical and Unprofessional Practices in Statistical Collaboration *Boston, Massachusetts*
Johnson, H., Love, K., Kelling, C., Yu, X. & Manisha, D. Joint Statistical Meetings, Invited Session *2026, August*

A Review of Open Data Efforts on Police Use of Force *Denver, Colorado*
Kelling, C., Freelin, B., & Mega, R. Evidence-Based Policing Symposium at the IACP Annual Conference *2025, October*

A Shared Component Point Process Model for Urban Policing *Virtual*
Kelling, C. & Haran, M. Women in Statistics and Data Science Conference. Withdrawn due to conflict with transitioned conference (federal government shutdown) *2025, November*

Development of Models in Spatial Statistics for Complex Policing and Social Science Applications *Virtual Conference*
Kelling, C. NSF@75: Advancing Statistical Science for a Data-Driven World *2025, July*

Formalizing the Study of Police Use of Force: Estimands, Data Constraints, and Policy Relevance *Norrköping, Sweden*
Lanzalotto, G., Knox, D., Mummolo, J., Kelling, C., & Shah, T. 11th International Conference on Computational Social Science *2025, July*

A Spatial Analysis of the Indian Farmers' Protest *Reston, VA*
Khanna, M. & Kelling, C. Women in Statistics and Data Science (WSDS) Conference *2024, October*

Techniques for Facilitation and Development of Community-Engaged Quantitative Courses *San Diego, CA*

Kelling, C., Morton, C., & Seru, E. International Association for Research on Service-Learning and Community Engagement Conference	2024, October
Data Access and Spatial Privacy Considerations in Policing	Portland, OR
Kelling, C., Haran, M., Slavkovic, A., Eldridge, C. & Sheridan, S. Invited Session at the Joint Statistical Meetings	2024, August
A Community-Engaged Statistical Analysis of Minneapolis Policing Practices, with Confluence Studio	University of St Thomas, MN
Kelling, C. & Gould, S. Minneapolis StatChat	2024, April
Spatial Statistics Challenges Due to Anonymization of Use of Force Data	Northfield, MN
Kelling, C., Haran, M., Slavkovic, A., Eldridge, C. & Sheridan, S. Ingram Olkin Forum	2023, November
Police Use of Force Data: An Examination of 31 U.S. Cities	Philadelphia, PA
Freelin, B. & Kelling, C. American Society of Criminology Annual Meeting	2023, November
A Spatial Analysis of the Indian Farmers' Protest using the Log Gaussian Cox Process	Boulder, CO
Khanna, M. & Kelling, C. Spatial Statistics Conference	2023, July
A Constrained Jittering Approach to Reduce Effects of Spatial Privacy on Point Process Inference	Toronto, Canada
Kelling, C., Haran, M., Slavkovic, A., Eldridge, C. & Sheridan, S. Joint Statistical Meetings	2023, August
Spatial Uncertainty in Point Process Inference with an Application to Urban Crime	St. Louis, MO
Kelling, C., Haran, M., & Slavkovic A. Women in Statistics and Data Science Conference (WSDS)	2022, October
A Shared Component Point Process Model for Urban Policing	Washington DC
Kelling, C. & Haran, M. Joint Statistical Meetings	2022, August
Spatial Misalignment Between Two Point Processes with an Application to Police Use of Force and Violent Crime	Virtual
Kelling, C. & Haran, M. Women in Statistics and Data Science Conference (WSDS)	2021, October
A Two-Stage Cox Process Model with Spatial and Nonspatial Covariates	Penn State
Kelling, C. & Haran, M. Graduate Exhibition	2021, March
<ul style="list-style-type: none"> • 3rd place, Best Presentation; Runner-up at CANSSI-NISS Workshop (May 2021) 	
The Experiences That Made Us	Pennsylvania State University
Kelling, C. Invited Panelist: Student Engagement EXPO	2021, February
A Two-Stage Cox Process Model with Spatial and Nonspatial Covariates	Virtual
Kelling, C. & Haran, M. Joint Statistical Meetings	2021, August
A Monte Carlo Analysis of Erroneous Inference in Spatial Event Studies	Virtual
Schutte, S. & Kelling, C. American Political Science Association (APSA) 2020	2020, September
Vetting Geographic Event Data Analysis against False Inference with Monte Carlo Simulations	Hamburg, Germany
Schutte, S. & Kelling, C. PolMeth Europe 2020. COVID Cancellation	2020, March
A Study of Spatial Misalignment with an Application to Police Use of Force	Virtual
Kelling, C., Haran, M., Graif, G., & Slavkovic, A. Joint Statistical Meetings	2020, July
Analyzing Community Reaction to Refugees through Text Analysis of Social Media Data	Petra, Jordan
Kelling, C. & Monroe, B. International Refugee Research Project Spring Conference. COVID Cancellation.	2020, April
Illuminating the Scope and Impact of Open Source Software	Bethesda, MD
Korkmaz, G., Kelling, C., & Robbins, C. National Bureau of Economic Research CRIW Conference	2019, March

A Comparison of Refugee Integration Using Topic Modeling: Sanctuary vs Non-Sanctuary Cities	<i>Washington DC</i>
Kelling, C. & Monroe, B. Virginia Tech Refugee Working Group	<i>2019, June</i>
A Study of Spatial Misalignment with an Application to Urban Crime	<i>Denver, Colorado</i>
Kelling, C., Haran, M., Graif, G., Slavkovic, A. & Korkmaz, G. Joint Statistical Meetings	<i>2019, July</i>
A Study of Algorithmic Bias Detection Methods	<i>State College, Pennsylvania</i>
Kelling, C. & Monroe, B. Center for Social Data Analytics Poster Session	<i>2019, January</i>
Modeling the Social and Spatial Ecology of Crime: Domestic and Sexual Violence Across Neighborhoods	<i>New York, New York</i>
Kelling, C., Graif, G., Korkmaz, G. & Haran, M. American Sociological Association Annual Meeting	<i>2019, August</i>
Specifying and Developing Point Process Models for Civil Conflict Data	<i>College Station, Texas</i>
Kelling, C., Haran, M., & Lin Y. Point Process Models Workshop	<i>2018, September</i>
Combining Geographic and Social Proximity to Model Urban Domestic and Sexual Violence	<i>Cincinnati, Ohio</i>
Kelling, C., Korkmaz, G., Graif, C., & Haran M. Women in Statistics and Data Science	<i>2018, October</i>
Using Indirect Engagement to Study Integration of Refugees	<i>Blacksburg, Virginia</i>
Kelling, C., Monroe, B., & Park, S. Advancing the Human Condition Symposium	<i>2018, November</i>
Open Source Software as Intangible Capital	<i>Washington DC</i>
Korkmaz, G., Kelling, C., & Robbins, C. IMF Statistical Forum	<i>2018, November</i>
New Opportunities to Observe and Measure Innovation	<i>Washington DC</i>
Robbins, C., Korkmaz, G., Kelling, C., & Keller, S. Interagency Council on Statistical Policy Big Data Day. National Academy of Sciences	<i>2018, May</i>
Analyzing the Social Integration of Refugees through Text Analysis of Social Media Data	<i>Munich, Germany</i>
Kelling, C. International Refugee Research Conference: Evidence for Smart Policy	<i>2018, March</i>
The Scope and Impact of Open Source Software as Intangible Capital	<i>Cambridge, MA</i>
Korkmaz, G., Kelling, C., & Robbins, C. NBER CRIW Pre-Conference	<i>2018, July</i>
Illuminating the Scope and Impact of Open Source Software	<i>Copenhagen, Denmark</i>
Robbins, C., Korkmaz, G., & Kelling, C. IARIW 35th General Conference	<i>2018, August</i>
Combining Geographic and Social Proximity to Model Urban Domestic and Sexual Violence	<i>State College, PA</i>
Kelling, C., Korkmaz, G., Graif, C., & Haran M. IGERT Big Data for Social Science Annual Poster Showcase	<i>2018, April</i>
Evaluation of Respondent-Driven Sampling Recruitment Protocols	<i>San Francisco, CA</i>
Kelling, C. National Conference on Health and Domestic Violence	<i>2017, September</i>
Modeling Response Time to Structure Fires	<i>Chicago, IL</i>
Arnsbarger, M., Goldstein, J., Kelling, C., & Korkmaz, G. Data Science for Social Good Conference	<i>2017, September</i>
Clustering Coefficient Analysis Through Small-Scale Diffusion Testing	<i>La Jolla, CA</i>
Kelling, C. & Verdery, A. Women in Statistics and Data Science	<i>2017, October</i>

Organizing Committee

Law and Justice Statistics Webinar Series Organizer and Moderator	<i>Ongoing</i>
Greg Ridgeway on The Landscape of Criminal Justice Data Sources	<i>April 2025</i>
Simon Cole on Counting Exonerations: Using the National Registry of Exonerations	<i>June 2025</i>
Min Xie on National Crime Victimization Survey at 50+	<i>December 2025</i>
Loren Atherley on You lookin' for police data? I got a guy...	<i>February 2026</i>

Statistics Serving Society Ingram Olkin Forums	<i>Ongoing</i>
Virtual Forum: Algorithmic Fairness and Social Justice	August 2019
Virtual Forum: Police Use of Force	June 2021
In-Person Ingram Olkin Forum, Northfield, MN (Chair of the Organizing Committee)	November 2023
Preparing to Teach Workshop. Portland Oregon.	<i>2024, August</i>
Big Ten Academic Alliance: The Science of Effective Mentorship in STEM, Satellite Meeting. State College, PA.	<i>2020, February</i>
ASA-sponsored Penn State Datafest. State College, PA.	<i>April 2019, April 2018, March 2017</i>
State of [Penn] State. State College, PA.	<i>2017, February</i>
(In)Visible Futures- Gender, Bodies & Technology Conference. Roanoke, VA.	<i>2016, April</i>
Gender-Based Violence Summit. Blacksburg, VA.	<i>2015, April</i>

GUEST LECTURES AND INVITED TALKS

Introduction to GitHub	<i>Washington State University</i>
Workshop for the Mathematics and Statistics Department	<i>2025, September</i>
Advances in Spatial Point Process Models for Urban Policing	<i>Washington State University</i>
Mathematics and Statistics Colloquium	<i>2025, September</i>
Community-Engaged Statistical Analysis of Secondary Data on Minneapolis Policing Practices with Confluence Studio	<i>Washington State University</i>
Mathematics and Statistics Colloquium	<i>2025, October</i>
Community-Engaged Statistical Analysis of Secondary Data on Minneapolis Policing Practices with Confluence Studio	<i>University of Minnesota</i>
Colloquium for REU program: Equitable Data Science in Adolescent Development	<i>2025, July</i>
Communicating with Community Partners	<i>Carleton College</i>
Workshop for summer researchers	<i>2025, July</i>
Spatial Analysis of Protests and Policing	<i>Carleton College</i>
Tour of Mathematics and Statistics	<i>2025, February</i>
Findings from Ingram Olkin Forum on Statistical Analysis of Police Use of Force	
Moderator, National Institute of Statistical Science Panel	<i>2025, April</i>
Internship Opportunities Panel for New Researchers	<i>Virtual</i>
Panelist, National Institute of Statistical Science	<i>2024, November</i>
Statistical Careers in Academia	<i>Virtual</i>
National Institute of Statistical Science Career Panel	<i>2024, May</i>
Statistics Graduate Student Association's Career Panel	<i>Penn State</i>
	<i>2024, March</i>
Mentoring Undergraduate Statistics Students for USPROC and Beyond	<i>Virtual</i>
Panelist	<i>2024, December</i>
An Introduction to Spatial Privacy and a Constrained Jittering Approach	<i>RAND, Virtual</i>
RAND Statistics Seminar Series	<i>2024, December</i>
Spatial Statistics and Policing: Opportunities and Challenges	<i>Carleton College</i>
FOCUS Colloquium	<i>2023, October</i>
• Also presented April 2025	
Spatial Statistics and Policing: Opportunities and Challenges	<i>Johns Hopkins University</i>
Data Dimensions Series	<i>2023, October</i>

Spatial Statistics and Policing: Opportunities and Challenges Family Weekend	<i>Carleton College</i> 2023, October
A Statistical Introduction to Spatial Analysis and Geostatistical Kriging GEOL 340 Hydrogeology: Groundwater	<i>Carleton College</i> 2023, May
An Experience of a Statistical Expert Witness on Age-related Employment Discrimination SOAN 113 Sociology of Work & Organizations	<i>Carleton College</i> 2023, May
Advances in Spatial Point Process Models for Urban Policing Mathematics, Statistics, and Computer Science Colloquium	<i>St Olaf College</i> 2023, March
Adventures in Teaching Across Disciplinary Divides Learning and Teaching Center Lunch Series	<i>Carleton College</i> 2023, April
<ul style="list-style-type: none"> • With Nierobisz, A., Gross, D., Neiworth, J., & Nega, T 	
A Shared Component Point Process Model for Urban Policing Center for Spatial Data Science Guest Lecture	<i>University of Chicago</i> 2023, April
Graduate School Information Session Panel: Applications, Admissions, Research, and More Joint organizer with UPUA	<i>Penn State</i> 2020, February
Social Data Analytics and Statistics: Applications to Crime in Communities, Gerrymandering, and Civil Conflict Statistics and Math Methods	<i>Susquehanna University</i> 2019, November
<ul style="list-style-type: none"> • Also presented Nov 2020 and Nov 2021 	
Guest Expert on Computational Social Science Bremen International Graduate School of Social Sciences (BIGSSS) Summer School on Migration	<i>Sardinia, Italy</i> 2019, June
Spatial Statistics: Applications to Gerrymandering, Crime in Communities, and Civil Conflict Geography 364: Spatial Analysis	<i>Penn State</i> 2018, November
Graduate School: Advice for Prospective PhD Students in Statistics Statistics 4024: Communication in Statistics	<i>Virginia Tech</i> 2018, November
Developing Data Science for Social Applications and Becoming a Citizen Scholar Presidential Global Scholars Program Invited Guest Lectures	<i>Riva San Vitale, Switzerland</i> 2018, March
Tips for a Successful College Experience, particularly in STEM, Math, and Statistics AP Calculus, AP Statistics, Calculus, Honors Trig, Honors Pre-Calc, Honors Algebra	<i>Little Miami High School</i> 2014-2019
<ul style="list-style-type: none"> • Presented annually 2014-2019 	

WORKSHOP PARTICIPATION

Engaged Scholar Initiative, 2025-2026. Campus Compact.	<i>Virtual Fellowship</i>
Alternative Grading Institute, December 2025. Center for Grading Reform.	Virtual
Modelers and Storytellers: Transdisciplinary Training to Advance Community Health Intervention Research, July 2025.	<i>Virtual, hosted by UCLA</i>
Preparing to Teach in Mathematics and Statistics Workshop, August 2022.	<i>Washington DC</i>
Institute for Mathematical and Statistical Innovation (IMSI) Research Collaboration Workshop Participant on Interdisciplinary and Critical Data Science Motivated by Social Justice, January 2023.	<i>Chicago, IL</i>

ADVISING/MENTORING

Ethan Masadde, Mia Wang Project Title: "Analysis of the Minneapolis Co-Complaint Policing Network"	<i>Carleton College</i> <i>Spring 2025</i>
Caroline Gans, Yiping Zou Project Title: "Documentation and Analysis of Minneapolis Policing Data"	<i>Carleton College</i> <i>Spring 2025</i>
Aubrey Tran, Kezia Sharnoff, Annabel Jay Project Title: "Understanding the Role of Age, Ejection Fraction, and Serum Creatinine in Death after Heart Failure"	<i>Carleton College</i> <i>Winter 2025</i>
<ul style="list-style-type: none"> • 2nd Prize in the December 2025 Intermediate Statistics Class Project competition (through the ASA and CAUSE) 	
Henry Burkhardt Project Title: "Forecast: A Changing Landscape"	<i>Carleton College</i> <i>Winter 2025</i>
Kai Zhang, Cynthia Leng Project Title: "Shiny App for Spatial Characterization of Policing Activity in Ward 9"	<i>Carleton College</i> <i>Winter Break 2024, Spring 2024, Fall 2024, Winter 2025</i>
Cynthia Leng, Hank Zhao Project Title: "A Spatial Analysis of Small Businesses in Mexico City"	<i>Carleton College</i> <i>Winter-Spring 2024</i>
Mia Wang, Maggie Votruba, Rachel Kim Project Title: "Exploring the Role of Proximity and Points of Interest in Studying Urban Intimate Partner Violence"	<i>Carleton College</i> <i>Summer-Fall 2024</i>
<ul style="list-style-type: none"> • People's Choice Prize in the Undergraduate Poster Session in the Spring 2025 meeting of the Twin Cities Chapter, American Statistical Associations 	
Paloma Bravo Project Title: "Small-Town Policing Initial Literature Review and Data Analysis"	<i>Carleton College</i> <i>Winter Break, 2023</i>
Noorah Aldaghlis Project Title: "Exploring the Role of Proximity and Points of Interest in Studying Urban Intimate Partner Violence"	<i>Carleton College</i> <i>Winter & Spring, 2023</i>
Alyssa Alvarez Project Title: "Cows, Colleges, Contentment, and Crime: A Study of Public Access to Policing Data with a Case Study of Northfield Police Department"	<i>Carleton College</i> <i>Spring, 2023</i>
Sara Shallenberger Project Title: "Planning of the Police Use of Force Ingram Olkin Forum"	<i>Carleton College</i> <i>Spring-Summer 2023</i>
Sammi Sheridan, Collin Eldridge, Christie Song Project Title: "Analysis of Spatial Uncertainty in Modern Public Data"	<i>Carleton College</i> <i>Summer 2023, Summer 2024, Fall 2024-Spring 2025</i>
<ul style="list-style-type: none"> • 1st Prize in the Undergraduate Poster Session in the Spring 2024 meeting of the Twin Cities Chapter, American Statistical Associations 	
Zhihan Yang Project Title: "County-Level And Point-Level Analysis Of The Relationship Between Political Inclination And Frequency Of Electric-Vehicle Charging Stations In New England"	<i>Carleton College</i> <i>Spring 2023</i>
<ul style="list-style-type: none"> • 3rd Prize in the June 2023 Undergraduate Statistics Research Project competition (through the American Statistical Association (ASA) and Consortium for the Advancement of Undergraduate Statistics Education (CAUSE)) 	
Benjamin Griesel-Costales Project Title: "Spatial Distribution of Excess Deaths Due To COVID-19 In Ecuador: Socioeconomic Disparities In Ecuadorian Provinces"	<i>Carleton College</i> <i>Spring 2023</i>
<ul style="list-style-type: none"> • Honorable Mention in the June 2023 Undergraduate Statistics Research Project competition (through the ASA and CAUSE) 	
Miriam Chasnov, Adriana Wiggins Project Title: "How Is Attaining a Bachelor's Degree In Georgia Counties Affected by Median Income and Poverty Rate?"	<i>Carleton College</i> <i>Fall 2023</i>

- 1st Prize in the December 2023 Intermediate Statistics Class Project competition (through the ASA and CAUSE)

Manasvi Khanna

Wellesley College

Project Title: “A Spatial Analysis of the Indian Farmers’ Protests”

2021-2023

TEACHING EXPERIENCE

Instructor, Carleton College

STAT 120 **Introduction to Statistics** F22, W24, W25

STAT 230 **Applied Regression Analysis** W23, F23, F24, W25

STAT 220 **Introduction to Data Science** F23, F24

STAT 310 **Spatial Statistics** S23, S24

Introduction to Sports Analytics Summer Liberal Arts Institute 2026

Visiting Instructor: Spatial Statistics, Wellesley College – Virtual, Spring 2021

Teaching Assistant: Summer School in Statistics for Astronomers, Penn State – State College, PA, Summer 2021

Teaching Assistant: Statistical Computing, Penn State – State College, PA, Fall 2020

Graduate Student Online Teaching Certificate, Penn State – State College, PA, Summer 2017

Assistant Facilitator: Introduction to Data Science, Penn State – State College, PA, August 2017- May 2018

Teaching Assistant, Introductory Statistics, Virginia Tech – Blacksburg, VA, August 2015- May 2016 (2 semesters)

ACADEMIC AWARDS & HONORS

- Spring 2022 Alumni Association Dissertation Award, Penn State
Provides funding and recognition to outstanding full-time doctor of philosophy students who have passed their comprehensive exams, have received approval of the dissertation topic and are within their final year of enrollment. This award is considered to be among the most prestigious available to Penn State graduate students and recognizes outstanding achievement in scholarship and professional accomplishment.
- Spring 2021 Best Paper Award- Joint Statistical Meetings
Jointly sponsored by the Social Statistics Section (SSS), Government Statistics Section (GSS), and Survey Research Methods Section of the American Statistical Association.
- Spring 2019 Gertrude Cox Award (\$1,000)
Sponsored by the ASA Committee on Women in Statistics and Caucus for Women in Statistics, this award was established in 1989 for one woman in or entering the early stages of graduate training and one to a woman in a more advanced stage of training.
- Spring 2018 Jack and Eleanor Pettit Scholarship in Science (\$2,500) Eberly College of Science, Penn State
- Fall 2017 Peter John Sawires Memorial Scholarship (\$600)
An award to attend the National Conference on Health & Domestic Violence. Applicants demonstrate an interest in promoting the health/safety of domestic violence victims.
- Fall 2017 National Science Foundation Travel Award- Women in Statistics and Data Science Conference (\$700)
- Spring 2017 Ellis R Ott Applied Statistics Scholarship (\$7,500)
The Statistics Division of the American Society for Quality offers this scholarship to support students enrolled in or accepted into a master’s degree or higher program with a concentration in applied statistics and/or quality management.
- Fall 2016 Rhodes Scholarship, Finalist
- Fall 2015, 2016 Marshall Scholarship, Virginia Tech Nominee

- Spring 2016 Outstanding Senior Award, College of Science
Sponsored by the Virginia Tech Alumni Association and the senior class, the Outstanding Senior Award recognizes exceptional academic achievement and leadership by a graduating senior from each of the university's eight colleges. Recipients have a minimum grade-point average of 3.75 on a 4.0 scale and are selected by faculty and students within their colleges.
- Spring 2016 National Phi Kappa Phi Graduate Fellowship (\$5,000)
The Greey Fellowship was created in 2001 to honor the memory of the late Kathleen Greey, a longtime chapter officer at Portland State University, who provided funds for this purpose in her estate plan. Preference was given to one of the top-ranking nominee whose undergraduate field is other than the basic sciences.
- 2015-2016 University Honors Merit Scholarship (\$2,000)
Provides funding to rising sophomores, juniors, and seniors in University Honors who have gone above and beyond academically to make themselves interesting."
- 2015-2016 Kathryn Kane Memorial Scholarship (\$1,247)
This scholarship is awarded annually by the Virginia Tech College of Science in memory of Ms. Katherine Kit" Kane for her leadership
- 2015-2016 Rising Senior Scholar Award, Virginia Tech College of Science (\$2,000)
Awarded by the Dean's Roundtable Advisory Board for excellence in work and service.
- Spring 2016 Whitfield Cobb Award
Awarded by the Department of Statistics in recognition of outstanding scholastic achievement in the Bachelor of Science Program in Statistics.
- 2014-2016 Clyde Kramer Scholarship (\$2,017)
Awarded by the Department of Statistics in recognition of outstanding service.
- 2012-2016 Dean's List (every semester)
- Spring 2016 Local Phi Kappa Phi Fellowship, Virginia Tech (\$1,000)
- 2014-2015 Rising Junior Scholar Award, Virginia Tech College of Science (\$2,000)
- 2014-2015 John H. Kroehling Scholarship (\$3,606)
A one-year scholarship for students who have exhibited high academic achievement, leadership skills, engagement with community service, and have financial need.
- Fall 2015 Honors Scholar of the Year Nominee, Virginia Collegiate Honors Council (VCHC)
Awarded to a student from a member institution that successfully embodies the scholarship, character, and ambition associated historically with honors students and the VCHC.
- 2015 Joint Mathematics Meeting Student Travel Award (\$400)
- 2012-2014 Honors Scholar, University Honors (\$5,000)
- 2013-2014 John Robert Lawson Scholarship (\$1,676)
Awarded by the Department of Statistics to students who have made significant contributions in the areas of leadership and academic excellence.

SERVICE & LEADERSHIP AWARDS & HONORS

- 2025-2026 JEDI STARS: Justice, Equity, Diversity & Inclusion: Structured Training and Activities for Resource Sharing
Selected participants will develop materials for the existing JEDI-CAUSE website and on the QUBES platform to expand the availability and awareness of JEDI-related teaching materials for statistics and data science educators.
- 2023-2024 Member of Inaugural Stats Forward Cohort, American Statistical Association (ASA)

This fellowship program aims to help these professionals grow, connect, and lead within the field, fostering their long-term commitment to the profession and preparing them to shape its future.

- Fall 2014, 2016, 2020, 2021 Jean B. Duerr Memorial Scholarship (\$4,000)
- This scholarship for women (undergraduate or graduate) will be given to those applicants who best demonstrate academic achievement and community service.
- Fall 2020, Fall 2021 Student Leader Scholarship, Penn State
- Spring 2020 Graduate Student Service Award
- This award recognizes the graduate student who has best combined high academic achievement with leadership in University or other public activities.
- Fall 2020 Homecoming Graduate Court
- Penn State Graduate Court is made up of 2 individuals from the Graduate School, who have succeeded within all areas of higher education while remaining committed to finding their home within the Nittany Lion Family.
- Spring 2020 Graduate Women in Science Member of the Month
- Citation: For the dedication to making Penn State a better place for all.
- Spring 2019 Atherton Outstanding Dedication to Penn State Award
- Awarded for consistently serving as an advocate in the Penn State community, for graduate and professional students in particular, for dedication to making Penn State a better place.
- Spring 2019 Rose Cologne Keystone Citizen Award
- The purpose of this award is to recognize Penn State students who have made valuable contributions in the areas of service and volunteerism to the Penn State campus and local communities as demonstrated by their ongoing involvement and efforts to engage and lead students in volunteer service.
- Spring 2017 Dean's Climate and Diversity Award, Nominee
- Spring 2017 It's On Us Pennsylvania Grant Recipient (Role: Data Analyst, Amount: \$30,000)
- The grants of up to \$30,000 each were awarded to postsecondary institutions across the state to implement strategies on their campuses to address goals of the Governor's It's On Us PA campaign.
- Spring 2016 Champion of Change, White House
- Recognized by the White House
- Spring 2016 Aspire Award for Courageous Leadership
- The Aspire! Awards were established by the Student Affairs in 2011 as a way to recognize and celebrate the Virginia Tech students who embody the Aspirations for Student Learning.
- Spring 2016 New River Valley Leading Light, Nominee
- 2015-2016 Rising Senior Leadership Award, German Club (\$1,000)
- Each spring, the German Club of Virginia Tech has awarded the Carol M. Newman Scholarship to outstanding non-German Club junior students on the Virginia Tech campus. The two recipients will be selected on the basis of leadership on campus, scholastic achievement, and personal integrity.
- Spring 2016 Keystone Fellow, Inaugural Class
- Fifteen students have been recognized as the inaugural cohort of Keystone Fellows, a group who embody the Aspirations for Student Learning in their classrooms, student organizations, residence halls, places of employment, and within their social groups. Keystone Fellows personify

a commitment to learning - both inside and outside the classroom - and they are devoted to improving themselves to better the world around them.

- Spring 2016 Ut Prosim (Service) Award, Virginia Tech
Awarded by the Honors Residential College at Virginia Tech for service to the community.
- Spring 2016 Individual Outstanding Achievement, Nominee
- Spring 2016 Outstanding Service to the Campus, Nominee
- 2014-2015 Rising Junior Leadership Award, German Club (\$1,000)
The Carol M. Newman Scholarship is awarded to outstanding non-German Club sophomore students on the Virginia Tech campus on the basis of leadership on campus, scholastic achievement, and personal integrity.
- 2012-2013 Norrine Bailey Spencer Strong Start Award
Fifty students in Virginia Tech's Honors College are recognized with the Norrine Bailey Spencer Strong Start Award. The award goes to students who achieved a 4.0 in their first semester of study at Virginia Tech.

SERVICE & LEADERSHIP ACTIVITIES

- 2023-2027 Co-Chair of the American Statistical Association's Committee on Law and Justice Statistics
- 2025-2027 Committee Member of the Emerging Application Section, Royal Statistics Society (RSS)
- 2025-2027 Editor of the American Statistical Association's Committee on Law and Justice Statistics "Law and Justice Data Spotlight Blog"
- 2022-2026 Organizer of the New Faculty Writing Group, Carleton College
- 2022-2026 Member of the Young Alumni Board, Virginia Tech
- 2023-2026 Publications Officer for the American Statistical Association Social Statistics Section
- 2024-2025 Co-Organizer, Community-Engaged Statistics and Data Science Teaching Community of Practice of the American Statistical Association
- 2023-2025 Learning and Teaching Center and Writing Advisory Committee Member
- 2022-2025 Faculty Advisor of the Gender Minorities in Statistics and Mathematics (GeMMS) Student Group at Carleton College
- 2023-2025 Math and Statistics Department Career Center Liaison
- 2023 National Science Foundation Panelist, Division of Mathematical Sciences
- 2017-2022 Pennsylvania Commission for Women: appointed to public office by Pennsylvania Governor Tom Wolf for a second two-year term
- 2020-2022 University Park Student Fee Board Chair, Penn State (allocates \$24 million annually)
- 2019-2022 Women in Statistics and Data Science at Penn State, Co-Founder
- 2016-2022 Penn State Statistics Climate and Diversity Committee Student Member
- 2017-2022 Advocacy and Diversity Committee (GPSA)
- 2019-2022 Presidential Appointed Member, Penn State Commission for Women (PSU CFW)
- 2017-2022 Sexual Violence Awareness & Prevention Roundtable
- 2019-2022 Student Leaders Roundtable Member
- 2021 Penn State Student Trustee Selection Committee
- 2019-2020 Student Body President, Graduate and Professional Student Association (GPSA)
- 2019-2020 Big Ten Graduate Student Coalition Member
- 2019-2020 Graduate School Alumni Society Student Representative
- 2019-2020 National Association of Graduate-Professional Students (NAGPS) Representative
- 2019-2020 Penn State Alumni Council Student Representative
- 2019-2020 University Park Student Fee Board Member, Penn State
- 2019-2020 Penn State Strategic Plan, Oversight Committee, Student Representative
- 2019-2020 Student Leader Scholarship Selection Committee
- 2017-2019 Graduate Student/Faculty Relations Committee, Graduate Council
- 2017-2019 Graduate Council Elected Student Member, Caucus Chair
- 2018-2019 Penn State Strategic Plan Steering Committee, Driving Digital Innovation
- 2017-2019 Stand for State Student Lead Coordinator and Peer Educator
- 2016-2019 Stand for State Student Engagement Committee

2016-2019 Member, Penn State Commission for Women
2016-2018 Stand for State Student Ambassador
2016-2018 Personal Safety Committee (PSU CFW)
2016-2018 Assessment Committee (PSU CFW)
2016-2017 Title IX Office Student Liaison- PSU
2016-2017 State of State Community Engagement
2016-2017 It's On Us Graduate Advisory Committee Leader
2015-2016 Head Coach, Kipps Volleyball (Undefeated)
2013-2016 Take Back the Night M.C. and Host and Lead Coordinator
2014-2016 President of Womanspace+ at VT
2013-2016 Special Olympics Volleyball Coach
2014-2016 Sexual Violence Prevention Council Member

HONOR & PROFESSIONAL SOCIETIES

Phi Beta Kappa

The Honor Society of Phi Kappa Phi

Gamma Beta Phi Honor Society

Golden Key Honor Society,

American Statistical Association

Mu Sigma Rho- The National Statistics Honor Society

Omicron Delta Epsilon- The International Honor
Society in Economics

Omicron Delta Kappa- National Leadership Honor
Society