

TIMOTHY J. PRESTBY

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EDUCATION

- 2025 **The Pennsylvania State University**
Doctor of Philosophy, Geography
Dissertation: “Evaluating Trust in Cartographic Representations: Theory, Methods, and Design”
Advisor: Dr. Anthony C. Robinson
- 2022 **The Pennsylvania State University**
Master of Science, Geography
Thesis: “The Design of COVID-19 Story Maps in Data Journalism”
Advisor: Dr. Anthony C. Robinson
- 2020 **The University of Wisconsin–Madison**
Bachelor of Science, Honors Cartography and GIS with Distinction
Certificate in Environmental Studies
Thesis: “Understanding Neighborhood Isolation”
Advisors: Dr. Song Gao & Dr. Robert E. Roth

POSITIONS

- 2025– **Assistant Professor of Applied GIS**
Geography Unit, James Madison University
- 2025– **Director of James Madison University Map Lab**
Geography Unit, James Madison University
- 2022–25 **National Science Foundation Graduate Research Fellow**
Department of Geography, Penn State
Advisor: Dr. Anthony C. Robinson, Professor of Geography
- 2022–25 **Graduate Employee-Cartographer**
Penn State GeoGraphics Lab
- 2020–22 **Graduate Research Assistant**
Department of Geography, Penn State
US Department of Agriculture-funded project “Beescape Nexgen”
PI: Dr. Christina Grozinger, Professor of Entomology
- 2021 **Cartography Intern**
Cartography Team, Apple Maps

PUBLICATIONS

Peer-Reviewed Journal Articles

- 2026 **Prestby, T.J.**, Jang, E., Pacheco, A. Seeing Isn't Always Believing: The Effects of Misinformation Modality and Debunking on Message Credibility and Memory Recall. *International Journal of Cartography*, 1-22. <https://doi.org/10.1080/23729333.2026.2655716>
- 2025 **Prestby, T.J.** Greatrex, H. The Impact of Data Reliability and Semantic Color Congruence on Trusting and Reading Visualizations. *Information Visualization*, 0(0). <https://doi.org/10.1177/14738716251398423>
- Prestby, T.J.** Map Interpretation. *The Geographic Information Science and Technology Body of Knowledge*. University Consortium of Geographic Information Science. <https://doi.org/10.22224/gistbok/2025.2.19>
- Case, N., **Prestby, T.J.**, Gartner, G. Elements of trust in maps. *Cartographic Perspectives*, (105). <https://doi.org/10.14714/CP105.1899>
- Prestby, T.J.** Why do People Trust Maps and What does Trust in Maps Mean? *Cartographic Perspectives*, (106). <https://doi.org/10.14714/CP106.1903>
- 2024 **Prestby, T.J.** Measuring Trust in Maps: development and evaluation of the MAPTRUST scale. *International Journal of Geographic Information Science*. <https://doi.org/10.1080/13658816.2024.2370076>
- 2023 **Prestby, T.J.** Trust in maps: what we know and need to know. *Cartography and Geographic Information Science*. <https://doi.org/10.1080/15230406.2023.2281306>
- Prestby, T.J.**, Robinson, A.C., McLaughlin, D., Dudas, P.M., & Grozinger, C.M. Characterizing user needs for Beescape: A spatial decision support tool focused on pollinator health. *Journal of Environmental Management*, 325, 116416. <https://doi.org/10.1016/j.jenvman.2022.116416>
- 2022 Hart, D.A., **Prestby, T.**, & Roth, R.E. Design and Evaluation of Coastal Web Atlases: Best Practices and Future Opportunities for Map Representation, Interaction, and Usability. *Coastal Management*, 50(6), 514-548. <https://doi.org/10.1080/08920753.2022.2126271>
- Prestby, T.** Design Techniques for COVID-19 Story Maps: A Quantitative Content Analysis. *Cartography and Geographic Information Science*, 1-20. <https://doi.org/10.1080/15230406.2022.2102077>

- 2022 Bley, K., Caldwell, K., Song, Z., Roth, R.E., Houtman, L., **Prestby, T.**, Iverson, A., & Gao, S. . Visual Storytelling with Maps: An Empirical Study on Story Map Themes and Narrative Elements, Visual Storytelling Genres and Tropes, and Individual Audience Differences. *Cartographic Perspectives*, (100), 10-44. <https://doi.org/10.14714/CP100.1759>
- 2021 Kelly, M., Loyd, J., Roth, R.E., Anderson, T.M., Bonds, A., Plevin, J., Madison, D., Sims, T., Spencer, C., Archuleta, C., Ellner, Z., McDowell, T., Nestel, C., Noterman, E., Smith, N., Velednitsky, S., Underwood, N., Darlington, R., Gao, Y., George, A., Miller, L., **Prestby, T.**, & Vongkusolkit, J. A Design Challenge for Transforming Justice. *GeoHumanities*. <https://doi.org/10.1080/2373566X.2021.1986100>
- 2020 Robinson, A.C., Peeler, J., **Prestby, T.**, Goslee, S. C., Anton, K., & Grozinger, C. M. Beescape: Characterizing user needs for environmental decision support in beekeeping. *Ecological Informatics*. <https://doi.org/10.1016/j.ecoinf.2021.101366>
- Li, B., Gao, S., Liang, Y., Kang, Y., **Prestby, T.**, Gao, Y., & Xiao, R. Estimation of regional economic development indicator from transportation network analytics. *Scientific reports*, 10(1), 1-15. <https://doi.org/10.1038/s41598-020-59505-2>
- 2019 **Prestby, T.**, App, J., Kang, Y., & Gao, S. Understanding neighborhood isolation through spatial interaction network analysis using location big data. *Environment and Planning A: Economy and Space*, 52(6), 1027-1031. <https://doi.org/10.1177/0308518X19891911>

Book Chapters

- 2021 Roth, R.E., Sack, C.M., Baldrice-Franklin, G., Chen, Y., Donohue, R., Houtman, L., **Prestby, T.**, Tolochko, R., & Underwood, N. Web Mapping: A Workbook for Interactive Cartography and Visualization on the Open Web (Version 0.2). *University of Wisconsin Cartography Laboratory*. <http://doi.org/10.5281/zenodo.4685763>
- Gao, S., Li, M., Rao, J., Mai, G., **Prestby, T.**, Marks, J., & Hu, Y. Automatic urban road network extraction from massive GPS trajectories of taxis. *Handbook of Big Geospatial Data*, 261. https://doi.org/10.1007/978-3-030-55462-0_11

Peer-Reviewed Extended Abstracts

- 2023 **Prestby, T.** In Maps We Trust. *Abstracts of the ICA*, 6, 206. <https://doi.org/10.5194/ica-abs-6-206-2023>

- 2023 Robinson, A.C., **Prestby, T.J.**, McLaughlin, D., Houtman, L., Dudas, P., and Grozinger, C. Geovisualization for Pollinator Decision Support with Beescape NexGen. *Abstracts of the ICA*, 6, 212. <https://doi.org/10.5194/ica-abs-6-212-2023>
- 2022 **Prestby, T.** Content Analysis of COVID-19 Cartographic Journalism. *Abstracts of the ICA*, 5, 65. <https://doi.org/10.5194/ica-abs-5-65-2022>
- Robinson, A.C., **Prestby, T.J.**, McLaughlin, D., Dudas, P., & Grozinger, C. Evaluating User Needs for Geovisualization of Pollinator Health and Ecosystems. *Abstracts of the ICA*, 5, 157. <https://doi.org/10.5194/ica-abs-5-157-2022>
- 2021 **Prestby, T.** Characterizing Storytelling in COVID-19 Cartographic Journalism. *Abstracts of the ICA*, 3, 245. <https://doi.org/10.5194/ica-abs-3-245-2021>
- Roth, R.E., Sack, C.M., Baldrice-Franklin, G., Chen, Y., Donohue, R., Houtman, L., **Prestby, T.**, Tolochko, R., and Underwood, N. Introducing Web Mapping: A Workbook for Interactive Cartography and Visualization on the Open Web. *Abstracts of the ICA*, 3, 254. <https://doi.org/10.5194/ica-abs-3-254-2021>

PRESENTATIONS

Invited Talks

- 2026 **Prestby, T.J.** Map Trust Through a Media Lens: Integrating Communication and Cartography. *City St George's, University of London*. March 12.
- Prestby, T.J.** Advancing the Science of Map Trust: A Theoretical and Empirical Approach. *BEGIN Seminar: School of Geography and Sustainable Development at University of St. Andrews*. March 10.
- Prestby, T.J.** Contextualizing Trust in Cartography: A Theoretical and Empirical Approach. *Colloquium series: Department of Geography at University of Oregon*. February 5.
- 2025 **Prestby, T.J.** An Incomplete Truth: Maps, Misinformation, and Trust. *NASA Earth to Sky, Science in Your Pocket*. July 18.
- Prestby, T.J.** Seeing is Believing? Understanding the Science of Trust and Deception in Maps. *International School on Visualization*. April 1.

Prestby, T.J. Improving Map-based Communication and Decision-making through User Studies, Education, and Practice. *School of Integrated Sciences at James Madison University*. January 27.

2023 **Prestby, T.J.** Trust in Maps: what we know and what we need to know. *Department of Geography and Earth Sciences at UNC Charlotte*. October 17.

Conference Presentations

*presenter on co-authored work

2025 **Prestby, T.J.** Visual Lies: How Maps and Images Impact Misinformation Perception. *North American Cartographic Information Society Annual Conference*. Louisville, KY: October 17.

Prestby, T.J. The Effects of Satellite Maps and Ground Images in Online News on Credibility and Recall. *No Boundaries Symposium*. State College, PA: May 3.

Prestby, T.J. The Impact of Design on Map Trust: A Study of Color Semantics and Uncertainty Representation. *American Association of Geographers Annual Meeting*. Ddetroit, MI: March 27.

2024 **Prestby, T.J.** Measuring Trust in Maps: Introducing the MAPTRUST Scale. *North American Cartographic Information Society Annual Conference*. Tacoma, WA: October 18.

Prestby, T.J. Trust in Maps: Applying the MAPTRUST Scale to Study Cartographic Design. *Viral Movements Symposium*. State College, PA: May 15.

Prestby, T.J. Conceptualizing Trust in Cartography. *American Association of Geographers Annual Meeting*. Honolulu, HI: April 18.

Prestby, T.J. An Empirical Study on How Color Congruence and Uncertainty Affect Map Trust. *Penn State Geography Miller Masterclass*. State College, PA: March 14.

Birkenholtz, T. *, **Prestby, T.J.**, Houtman, L. Placing Wetlands in the Watershed: Situating Millbrook Marsh, Pennsylvania in the Chesapeake Bay Watershed. *Delaware Wetlands Conference*. Wilmington, DE: February 6.

2023 **Prestby, T.J.** To Trust or Not to Trust Maps, That Is the Question. *North American Cartographic Information Society Annual Conference*. Pittsburgh, PA: October 12.

Robinson, A.C.*, **Prestby, T.J.**, McLaughlin, D., Houtman, L., Dudas, P., and Grozinger, C. Geovisualization for Pollinator Decision Support with Beescape NexGen. *International Cartography Conference*. Cape Town, South Africa: August 16.

Prestby, T.J. In Maps We Trust. *International Cartography Conference*. Cape Town, South Africa: August 15.

Prestby, T.J. The Intersection of AI, Trust, and Cartography. *Pre-conference Workshop on MapAI, International Cartography Conference*. Stellenbosch, South Africa: August 12.

2022 Song, Z.*, Roth, R.E., Houtman, L., **Prestby, T.J.**, Iverson, A., & Gao, S. Visual Storytelling with Maps: Update and Outlook from an Empirical Study. *AutoCarto*. Redlands, CA: November 3.

Prestby, T.J. Surveying the Design of Story Maps in Digital Journalism. *North American Cartographic Information Society Annual Conference*. Minneapolis, MN: October 20.

Prestby, T.J. Design Techniques for COVID-19 Story Maps: A Quantitative Content Analysis. *EuroCarto*. Vienna, Austria: September 21.

Robinson, A.C.*, **Prestby, T.J.**, McLaughlin, D., Dudas, P., & Grozinger, C. Evaluating User Needs for Geovisualization of Pollinator Health and Ecosystems. *EuroCarto*. Vienna, Austria: September 21.

2021 **Prestby, T.J.** Characterizing Storytelling in COVID-19 Cartographic Journalism. *International Cartography Conference*. Florence, Italy: December 16.

Prestby, T.J. Mapping Multiscale Pollinator Big Data. *Center for Pollinator Research Symposium*. State College, PA: November 16.

Roth, R.E.*, Sack, C.M., Baldrice-Franklin, G., Chen, Y., Donohue, R., Houtman, L., **Prestby, T.J.**, Tolochko, R., & Underwood, N. Introducing "Web Mapping: A Workbook for Interactive Cartography and Visualization on the Open Web". *North American Cartographic Information Society Annual Conference*. Oklahoma City, OK: October 14.

Hart, D.A.*, **Prestby, T.J.**, & Roth, R.E. Design and Evaluation of Coastal Web Atlases: Best Practices and Future Opportunities for Map Representation, Interaction, and Usability. *CoastGIS*. Virtual: September 16.

Hart, D.A., **Prestby, T.J.**, & Roth, R.E. Enhancing the Wisconsin Coastal Atlas as a Resource to Support Adaptive Coastal Management. *International Coastal Atlas Network Steering Meeting*. Virtual: September 27.

- 2020 Hart, D.A. *, **Prestby, T.J.** *, & Roth, R.E. Designing Coastal Web Atlases: Best Practices and Future Directions. *Social Coast Forum*. Charleston, SC: February 6.
- 2019 **Prestby, T.J.**, Gao, S., Liang, Y., Kang, Y., & Li, B. Linking Traffic Volume to Economic Development Using Big Data and Gravity Models. *American Association of Geographers Annual Meeting*. Washington, DC: April 4.

Panels

- 2023 **Prestby, T.J.** “Advancing GIS Careers” *GISalon Webinar*, GISphere.

FELLOWSHIPS, GRANTS, AND AWARDS

Fellowships

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| 2022–25 | Graduate Research Fellowship
<i>National Science Foundation</i> | \$37,500/year |
| 2019–20 | Hilldale Undergraduate Research Fellowship
<i>UW-Madison</i> | \$4,000 |

Grants

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| 2026 | College of Integrated Science & Engineering Mini Grant
<i>James Madison University</i> | \$735 |
| 2023 | Graduate Enrichment Research Grant
<i>Department of Geography, Penn State</i> | \$400 |
| 2021 | Graduate Research Enrichment Grant
<i>Department of Geography, Penn State</i> | \$300 |

Travel Grants

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| 2024 | Student Travel Grant
<i>North American Cartographic Information Society</i> | \$500 |
| 2023 | Student Travel Grant
<i>North American Cartographic Information Society</i> | \$500 |
| | Young Scientist Award
<i>International Cartographic Association</i> | \$1,000 |
| | Early Career Scholar Award
<i>U.S. National Committee to the International Cartographic Association</i> | \$2,500 |

2022	Student Travel Grant <i>North American Cartographic Information Society</i>	\$500
	Young Scientist Award <i>International Cartographic Association</i>	\$500
2021	Student Travel Grant <i>North American Cartographic Information Society</i>	\$500
	Young Scientist Award <i>International Cartographic Association</i>	\$1,000
	Early Career Scholar Award <i>U.S. National Committee to the International Cartographic Association</i>	\$2,500
2020	Student Travel Grant <i>North American Cartographic Information Society</i>	\$500
2019	Student Travel Grant, <i>North American Cartographic Information Society</i>	\$500
	Bromley Research Travel Grant <i>L & S Honors Program, UW–Madison.</i>	\$500

Map Awards

2021	David Woodward Award for Best Digital Map, Honorable Mention <i>Cartography and Geographic Information Society</i>	
	Arthur Robinson Award for Best Print Map, Honorable Mention <i>Cartography and Geographic Information Society</i>	
2019	Barbara Bartz Petchenik Cartographic Excellence Award <i>Department of Geography, UW–Madison</i>	
	Keynote's Choice Award <i>Wisconsin Land Information Association</i>	
	Thematic Map Award, First Place <i>Wisconsin Land Information Association</i>	

Awards

2024	Cartography and GIS Doctoral Scholarship Award <i>Cartography and Geographic Information Society</i>	\$2,000
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2022	Outstanding Graduate Research Assistant Award <i>Department of Geography, Penn State</i>	\$1,500
2021	Geospatial Intelligence Scholarship <i>US Geospatial Intelligence Foundation</i>	\$3,000
	Damon Anderson Memorial Scholarship <i>Wisconsin Land Information Association</i>	\$2,000
2020	FEGR Top-up Award <i>Penn State College of Earth and Mineral Sciences</i>	\$5,000
	Olmstead Award for Excellence in Cartography <i>Department of Geography, UW–Madison</i>	\$100
2019	Jerome Kohn Geographic Excellence Award <i>Department of Geography, UW–Madison</i>	\$500
2018	William F. Vilas Merit Scholarship, <i>UW–Madison</i>	\$2,000
2018–20	College of Letters and Sciences Dean’s List <i>UW–Madison</i>	
2017–18	Community Environmental Scholar, <i>UW–Madison</i>	\$4,000/year
2016–18	College of Agriculture and Life Sciences Dean’s List <i>UW–Madison</i>	

TEACHING EXPERIENCES

Course Instructor, James Madison University

Geography 464: Advanced Cartography (Fall 2026)

Geography 365: Cartography and Geospatial Visualization (Spring 2026, Fall 2026)

Geography 215: Introduction to Geographic Information Science and Cartography (Fall 2025, Spring 2026)

Geography 366: Intermediate Geographic Information Science (Fall 2025)

Course Instructor, Penn State

Geography 361: Cartography—Maps and Map Construction (Fall 2024, Spring 2025)

Teaching Assistant, Penn State

Geography 361: Cartography—Maps and Map Construction (Fall 2023)

MENTORSHIP

Undergraduate Capstone Advisor

2026–	Colin Lambert	Honors BS in Geography	JMU
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Undergraduate Mentorship

2026–	Tenley Kennett	BS in Geography & Computer Science	JMU
2025–	Lauren Keller	BS in Media Arts and Design	JMU
2025–	Ava Seitzer	BS in Geography	JMU
2025–26	Nathan Englund	BS in Geography	JMU
2024–25	James Schafer	BA in Geography	PSU
2023–24	Michael Cattell	BS in Geography & Education Policy	PSU
2023–24	Allison Welch	BS in Earth Sciences	PSU
2021	Camilla Pena	BS in Geography	PSU

DISCIPLINARY SERVICE

Journal Reviews

Cartography and Geographic Information Science (10)

International Cartography Conference (6)

International Journal of Human-Computer Interaction. (2)

Cartography and Geographic Information Science Conference (2)

IEEE Transactions in Visualization and Computer Graphics (1)

International Journal of Geographic Information Science. (1)

Preventing Chronic Disease (1)

GeoHumanities (1)

Cartographica (1)

The Cartographic Journal. (1)

International Journal of Cartography (1)

Leadership Roles

2024– Editorial Board, *Cartography and Geographic Information Science*

2024–25 Student Director, *AAG Cartography Specialty Group*

2022–25 Editorial Board, *Journal of Maps*

Conference Session Organization

2024 Putting the Human Back in Cartography: Methods and Theories.
American Association of Geographers Annual Meeting. Honolulu, HI:
April 18. Sponsored by the Cartography Specialty Group. Co-organized
with Jack Swab.

Memberships

2024– Cartography and Geographic Information Society

2023– International Cartography Association: Commission on Ethics

2019– Cartography Specialty Group of the American Association of Geographers

2019– North American Cartographic Information Society

2019– Phi Beta Kappa

INSTITUTIONAL SERVICE

2026– **Curriculum Renewal Steering Committee**
Geography Program, James Madison University

2024–25 **Undergraduate Student Mentor**
GeoGraphics Lab, Penn State

2021–23 **President, Supporting Women in Geography**
Department of Geography, Penn State.

2021–22 **Graduate Coordinator, Undergraduate Research Opportunities Connection**
Department of Geography, Penn State.