# TIMOTHY J. PRESTBY *curriculum vitae*

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## EDUCATION

**The Pennsylvania State University**                                  *Fall 2022–*
   Doctor of Philosophy, Geography

**The Pennsylvania State University**                          *Fall 2020 – Spring*
   Master of Science, Geography                            *2022*

**The University of Wisconsin–Madison**
   Bachelor of Science, Honors Cartography and GIS          *Fall 2016 – Spring*
   Certificate in Environmental Studies                    *2020*

## RESEARCH POSITIONS

- **Graduate Researcher Assistant**                          *Fall 2020 – Summer 2022*
  **Department of Geography,** *Penn State*
  *Advisers:* Dr. Christina Grozinger, Professor of Entomology,
       Dr. Anthony Robinson, Associate Professor of Geography

- **Undergraduate Research Assistant**                      *Spring 2019 – Summer 2020*
  **University of Wisconsin Cartography Lab,** UW-Madison
  *Adviser:* Dr. Robert Roth, Professor of Geography

- **Undergraduate Research Assistant**                      *Fall 2018 – Summer 2020*
  **Geospatial Data Science Lab,** UW-Madison
  *Adviser:* Dr. Song Gao, Associate Professor of Geography

## PUBLICATIONS

### Refereed Journal Articles

**Prestby, T. J**., Robinson, A. C., McLaughlin, D., Dudas, P. M., & Grozinger, C. M. (2023). 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

Hart, D. A., **Prestby, T.,** & Roth, R. E. (2022). 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.** (2022). 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

Song, Z., Roth, R.E., Houtman, L., **Prestby, T.**, Iverson, A., & Gao, S. (2022). 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). https://doi.org/10.14714/CP100.1759

Bley, K., Caldwell, K., 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. (2021). A Design Challenge for Transforming Justice. *GeoHumanities*. https://doi.org/10.1080/2373566X.2021.1986100

Robinson, A. C., Peeler, J., **Prestby, T.**, Goslee, S. C., Anton, K., & Grozinger, C. M. (2021). 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. (2020). 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

**Prestby, T.**, App, J., Kang, Y., & Gao, S. (2020). 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

Roth, R.E., Sack, C.M., Baldrica-Franklin, G., Chen, Y., Donohue, R., Houtman, L., **Prestby, T.**, Tolochko, R., & Underwood, N. (2021) 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. (2021). 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

## Refereed Conference Extended Abstracts

**Prestby, T.** (2022). 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. (2022). 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

**Prestby, T.** (2021). 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., Baldrica-Franklin, G., Chen, Y., Donohue, R., Houtman, L., **Prestby, T.,** Tolochko, R., and Underwood, N. (2021). 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

**\***presenter on co-authored work

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

**Prestby, T.** (2022). Surveying the Design of Story Maps in Digital Journalism. *NACIS*. Minneapolis, Minnesota: October 20.

**Prestby, T.** (2022). 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. (2022). Evaluating User Needs for Geovisualization of Pollinator Health and Ecosystems. *EuroCarto*. Vienna, Austria: September 21.

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

**Prestby, T.** (2021). Mapping Multiscale Pollinator Big Data. *Center for Pollinator Research Symposium*. State College, Pennsylvania: November 16.

Roth, R.E., Sack, C.M., Baldrica-Franklin, G., Chen, Y., Donohue, R., Houtman, L., **Prestby, T.**, Tolochko, R., & Underwood, N. (2021). Introducing "Web Mapping: A Workbook for Interactive Cartography and Visualization on the Open Web". *North American Cartographic Information Society Annual Conference*. Oklahoma City, Oklahoma: October 14.

Hart, D.A., **Prestby, T.**, & Roth, R.E. (2021). 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.**, & Roth, R.E. (2021). Enhancing the Wisconsin Coastal Atlas as a Resource to Support Adaptive Coastal Management. *International Coastal Atlas Network Steering Meeting*. Virtual: September 27.

Hart, D.A., **Prestby, T.\***, & Roth, R.E. (2020). Designing Coastal Web Atlases: Best Practices and Future Directions. *Social Coast Forum*. Charleston, South Carolina: February 6.

**Prestby, T.**, App, J., Kang, Y., & Gao, S. (2020). Visualizing Neighborhood Isolation by Spatial Interaction Network Analysis. *American Association of Geographers Annual Meeting*. Denver, Colorado: Canceled.

**Prestby, T.**, Gao, S., Liang, Y., Kang, Y., & Li, B. (2020). Linking Traffic Volume to Economic Development Index Using Big Data and Gravity Models. *American Association of Geographers Annual Meeting*. Washington, DC: April 4.

# FELLOWSHIPS, GRANTS, AND AWARDS

## Fellowships

2022  Graduate Research Fellowship. *National Science Foundation*

2019-2020  Hilldale Undergraduate Research Fellowship. *UW–Madison.*

## Grants

2022  Student Travel Grant. *North American Cartographic Information Society (NACIS).*

2021  Student Travel Grant. *North American Cartographic Information Society (NACIS).*

2021  Graduate Enrichment Grant. *Department of Geography, Penn State.*

2019  Bromley Research Travel Grant. *L & S Honors Program, UW–Madison.*

2019  Student Travel Grant. *North American Cartographic Information Society (NACIS).*

## Awards

2022 Young Scientist Award. *International Cartographic Association.*

2022  William and Mary Easterling Outstanding Graduate Research Assistant Award. *Department of Geography,*
*Penn State.*

2021  Young Scientist Award. *International Cartographic Association.*

2021  Early Career Scholar Award. *U.S. National Committee to the International Cartographic Association.*

2021  Geospatial Scholarship. *US Geospatial Intelligence Foundation.*

2021  Damon Anderson Memorial Scholarship. *Wisconsin Land Information Association (WLIA).*

2020  Olmstead Award for Excellence in Cartography. *Department of Geography, UW–Madison.*

2020  Student Membership Award. *North American Cartographic Information Society (NACIS).*

2020  Jerome Kohn Geographic Excellence Award. *Department of Geography, UW–Madison.*

2019-2020  Phi Beta Kappa. *UW–Madison.*

2018  William F. Vilas Merit Scholarship. *UW–Madison.*

2018-2020       College of Letters and Sciences Dean's List. *UW–Madison.*

2017  Community Environmental Scholar. *UW–Madison.*

2016-2020  College of Agriculture and Life Sciences Dean's List. *UW–Madison*

## Map Awards

2021  David Woodward Award for Best Digital Map, <u>Honorable Mention</u>. *Cartography and Geographic Information Society (CaGIS).*

2021  Arthur Robinson Award for Best Print Map, <u>Honorable Mention</u>. *Cartography and Geographic Information Society (CaGIS).*

2019  Barbara Bartz Petchenik Cartographic Excellence Award. *Department of Geography, UW–Madison.*

2019  Keynote's Choice Award. *Wisconsin Land Information Association (WLIA).*

2019  Thematic Map Award, <u>First Place</u>. *Wisconsin Land Information Association (WLIA).*

# TEACHING AND PEDAGOGY

- **Teaching Assistant**                                                    *Spring 2020*
  *Department of Geography, UW–Madison.*
  Geography 575: Interactive Cartography and Visualization

# SERVICE

## Service to Discipline

2022–  Editorial Board – Social Media, *Journal of Maps*

2022–  Reviewer, *International Journal of Human-Computer Interaction.*

2021–  Reviewer, *Cartography and Geographic Information Science (CaGIS) Journal.*

## Service to Department

2021–  Supporting Women in Geography (SWIG) President.  *Department of Geography, Penn State.*

2021–2022  Undergraduate Research Opportunities Connection (UROC) Graduate Coordinator.
*Department of Geography, Penn State.*

## PROFESSIONAL EXPERIENCE

- **Cartography Intern**                                                    *May 2021 – August 2021*
  *Cartography Team, Apple Maps*

- **Web Developer**                                                    *January 2019 – August 2020*
  *University of Wisconsin Cartography Lab, UW-Madison*

## STUDY ABROAD EXPERIENCE

- **Discover in Scandinavia (DIS)**                                                    *Summer 2019*
  Copenhagen, Denmark

- **Wageningen University and Research (WUR) Exchange**                                *Spring 2018*
  Wageningen, Netherlands

- **UW Greenhouse Program in Nicaragua**                                              *Summer 2016*
  Nicaragua

## PROFESSIONAL MEMBERSHIPS

- Association of American Geographers (AAG)
- Cartography Specialty Group of the Association of American Geographers (AAG–CSG)
- North American Cartographic Information Society (NACIS)