

# Lily Houtman

cartographer and UI/UX designer

portfolio: [lilyhoutman.github.io](https://lilyhoutman.github.io)

email: [lhoutman@psu.edu](mailto:lhoutman@psu.edu)

pronouns: they/them

## RESEARCH INTERESTS

mobile/digital cartography, accessibility, digital humanities, critical geography, UI/UX design, data journalism

## EDUCATION

The Pennsylvania State University	2024-present
Ph.D. Geography	ABD since May 2025
Advisor: Anthony C. Robinson	
Committee: Cynthia Brewer, Mark Ortiz, Pamela VanHaitsma	
<b>Dissertation:</b> <i>Evaluating the Production and Use of Mobile and Responsive Thematic Maps</i> (Forthcoming)	
The Pennsylvania State University	2022-2024
M.S. Geography	
Advisor: Anthony C. Robinson	
Committee: Cynthia Brewer and Helen Greatrex	
<b>Thesis:</b> <i>Mobile Thematic Map Design in Data Journalism: An Evaluation of Techniques, Challenges, and Opportunities</i>	
University of Wisconsin – Madison	2018-2022
B.S. Cartography and GIS (Honors)	
Advisor: Robert E. Roth	
<b>Thesis:</b> <i>Mapping Presidential Elections: An Empirical Analysis of Effective Design Techniques</i>	
B.S. Geography	
B.S. Anthropology	
Certificate in Archaeology	

## PROFESSIONAL and RESEARCH EXPERIENCE

<b>Graduate Researcher – The Political-Industrial Ecology of Petrochemicals</b>	2025-present
<i>The Pennsylvania State University, Department of Geography</i>	
PI: Dr. Jenn Baka	
Developed mockups and assisted with the UI/UX design of <a href="#">InFracStructure</a> , a tool which visualizes fracking and petrochemical resources in Pennsylvania to inform community members about the fracking-related emissions in their community. Led two user-centered design studies related to the tool, including preliminary interviews with NGO leaders. Developed in-person user evaluations with retired community members on mobile and desktop devices (planned date: May 2026). Will analyze results to understand how this complex interactive map works for the targeted users of the tool, and improve its design for future iterations.	
<b>Graduate Researcher – Non-Binary Maps to Reimagine Borderlands</b>	2024-present
<i>The Pennsylvania State University, Department of Geography</i>	
PI: Dr. Melissa W. Wright	

Collaborate with Dr. Melissa Wright to develop a cartographic and theoretical project that seeks to “unmap” the Rio Grande River Valley region and the borderlands of the United States and Mexico. Develop maps that consider the Rio Grande region from the constantly moving perspective of the watershed, instead of nation-state borders. Use creative cartographic design to highlight how existing infrastructure, including rail, river, and road network can defy and reimagine borders. Present maps in public venues, including classrooms and conferences. Contribute to academic work in the geohumanities through academic publications.

**Graduate Student Cartographer – The GeoGraphics Lab**

2023-present

*The Pennsylvania State University, Department of Geography*

Creative Director: Dr. Alicia Iverson

Apply six years of cartographic design experience to a variety of solo and group mapping projects in the GeoGraphics Lab, primarily through client projects. Work directly with clients including Penn State faculty, community partners, and external groups, to meet the unique design needs of each client. Work on projects related both to web mapping and physical map production, including maps for a large education center in the local community, Millbrook Marsh. As the most senior graduate student in the lab, serve as a mentor to graduate and undergraduate students, both for cartographic design and cartographic research.

**Student Researcher – *Mapping for a Sustainable World: QGIS Technical Supplement*** 2021-present

*University of Wisconsin – Madison Cartography Lab, Department of Geography*

Advisor: Dr. Robert Roth

Design a [set of open-source QGIS technical mapping tutorials](#) in 2021 and 2022 to support instruction about cartographic design. Directly supplement the joint International Cartographic Association and United Nations publication *Mapping for a Sustainable World* to support free and open education, data, and software. In 2025, implement updates to the tutorials based on feedback from multiple international workshops and feedback from educators who used the tutorials in classroom settings.

**Graduate Research Assistant – Beescape NexGen Geovisualization Tool**

2022-2025

*The Pennsylvania State University, Departments of Geography and Entomology*

PIs: Dr. Christina Grozinger and Dr. Anthony Robinson

Develop mockups based on previous focus groups for the tool *Beescape*, a [decision support tool](#) to assess the quality of the landscapes for supporting pollinators. Designed a printable version of the tool to assist field-based, offline use. Develop and implement an online user evaluation of beekeepers to assess the usability and utility of the web tool. Present the tool and related user evaluations in academic and public settings. Incorporate feedback from the most recent user test to develop a preliminary mobile version of the tool, also incorporating expert knowledge from my graduate research on mobile map design.

**Graduate Student Collaborator – Harm Mapping: Visualizing Sexual Harassment** 2023-2024

*The Pennsylvania State University and Lafayette College*

PI: Dr. Dana Cuomo

Collaborate with researchers at Lafayette College to take collected they collected on student experiences of sexual harassment, and incorporate it into maps to communicate the results with a broader audience. Consider the sensitive nature of the data and incorporate feminist principles to develop maps that will both serve the community and respect data privacy. Display maps in public settings on Lafayette College’s campus to educate students and faculty about gender-based

violence on campus. Supply maps to project PI, who used the maps to argue to campus administration to implement changes in the campus built environment to better protect students.

### **Web Development Intern**

2021-2022

*United States Geological Survey, Web Mapping and Informatics Team*

Update many existing science communication tools for the USGS, improving public outreach. Ensure all tools comply with accessibility standards for websites. Using JavaScript, added layers and improved the design of the Coastal Barrier Resource System Mapper, while staying within organizational design constraints. Using HTML, CSS, and Javascript, updated the Water Quality Portal, a database tool where users can access water quality data. Used Vue and Leaflet to begin the Real-Time Flood Impact Map, and documented the development process to pass the work on to another intern.

### **Undergraduate Student Cartographer – The UW Cartography Lab**

2020-2022

*University of Wisconsin – Madison, Department of Geography*

Creative Director: Tanya Anderson

Work on a variety of client projects for community members and faculty affiliated with the university. Take on long term projects that require the management of a consistent style guide, including a series of 15 maps in grayscale for a history book, at times working with historical borders and historical data. Update the lab website to maintain current projects and improve visibility of current students. Collaborate with other students on larger group projects, including web-based mapping projects. Assist other students as needed, including a lead role in printing physical maps via a large plotter, and serving as technical support for plotter issues.

### **Undergraduate Curation Assistant – Biological Anthropology Teaching Collection**

2019-2020

*University of Wisconsin – Madison, Department of Anthropology*

Museum Director: Elizabeth Leith

Assist in updating the Anthropology department teaching collection, to ensure consistency between physical and digital records. Transition records to digital systems as the university moves to primarily digital formats. Update physical labels on older collection items where records have worn off. Use expertise to identify unlabeled or miscatalogued collections. Record duplicate materials, such as cast replicas of hominin bones. Provide care to bones of modern humans, and identify any specimen which should not be in university ownership due to NAGPRA.

### **Museum Collections Intern – History and Natural History**

Summer 2019

*Neville Public Museum*

Collections Manager: Louise Pfothenhauer

Transition museum collections from closed exhibits to temporary and permanent storage, using physical and digital records to track locations. Select items from museum collections for public display in new exhibits, and draft complimentary descriptions of displayed items. With other museum staff, workshop ideas for new exhibits and explore collections for relevant materials, particularly with sensitivity to the depiction of marginalized groups. During this time, the museum's permanent display was undergoing a major transition, so another role was to talk with the public about this ongoing change.

## **PEER-REVIEWED PUBLICATIONS**

Roth, RE, A Iverson, A Kagawa, G Le Sourd, B Ricker, T Andersen, G Baldrice-Franklin, **L Houtman**, F Ilunga, M Lee, M-J Kraak. 2025. Making and remaking Mapping for a Sustainable World: a

retrospective and prospective analysis as a case study in Processual Cartography. *International Journal of Cartography*, p. 1-40.

**Houtman, L**, AC Robinson, D McLaughlin, and C Grozinger. 2025. Evaluating the Usability and Utility of a Spatial Decision Support System for Pollinator Ecology. *Ecological Informatics*, 89, p. 1-12.

**Houtman, L**. 2025. Techniques, Challenges, and Opportunities in Mobile Thematic Map Design for Data Journalism. *Cartography and Geographic Information Science*, p. 1-20.

Song Z, RE Roth, **L Houtman**, T Prestby, A Iverson, and S Gao. 2023. 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, pp. 10-44.

## BOOK and TUTORIAL PUBLICATIONS

**Houtman L**, G Baldrice-Franklin, and R.E. Roth. 2025. *Mapping for a Sustainable World: QGIS Technical Supplement*. Version 2.0 The University of Wisconsin Cartography Lab: Madison, WI. DOI: [10.5281/zenodo.5585647](https://doi.org/10.5281/zenodo.5585647)

Roth RE, G Gartner, G Baldrice-Franklin, A Cowart, **L Houtman**, A Kagawa, M Keskin, MJ Kraak, NT Nawshin, F Ortig, B Ricker, S Schlumpf, and Z Stachoň (Editors). 2025. *Atlas of Sustainability*. Vienna, Austria: The International Cartographic Association.

**Houtman L**, and RE Roth, 2021. *Mapping for a Sustainable World: QGIS technical supplement*. Version 1.0 The University of Wisconsin Cartography Lab: Madison, WI. DOI: [10.5281/zenodo.5585647](https://doi.org/10.5281/zenodo.5585647)

Roth RE, CM Sack, G Baldrice-Franklin, Y Chen, R Donohue, **L Houtman**, T Prestby, R Tolochko, and N Underwood, 2020. *Web Mapping: A Workbook for Interactive Cartography and Visualization on the Open Web*. Version 1.0. University of Wisconsin Cartography Laboratory: Madison, WI. DOI: [10.5281/zenodo.4685763](https://doi.org/10.5281/zenodo.4685763)

## CASE STUDIES

**Houtman, L**, D Cuomo, M Dennehy, M Forman, A Zea, and S Hannan. 2025. The Harm Mapping Project: Navigating Ethics and Collaboration in Map Design. *Cartographic Perspectives*, 105, p. 27-33.

## CONFERENCE PUBLICATIONS

**Houtman L**, G Baldrice-Franklin, and RE Roth. 2026. Reintroducing a QGIS Technical Supplement for *Mapping for a Sustainable World*. *Abstracts of the ICA (Cartography and Sustainable Development Workshop) (accepted)*

**Houtman, L**. 2025. Characterizing the current state of mobile thematic cartography. *Abstracts of the ICA (International Cartographic Conference)*, 10, p. 111.

**Houtman, L**. 2024. Future opportunities for mobile thematic map design in data journalism. *Abstracts of the ICA (European Cartographic Conference)*, 7, p. 59.

**Houtman, L**. 2023. At the Intersection of Mobile Thematic Cartography and Data Journalism. *Abstracts of the ICA (International Cartographic Conference)*, 6, p. 93.

- Robinson AC, TJ Prestby, D McLaughlin, **L Houtman**, P Dudas, and C Grozinger. 2023. Geovisualization for Pollinator Decision Support with Beescape NexGen. *Abstracts of the ICA (International Cartographic Conference)*, 6, p. 212.
- Houtman L.** 2022. Mapping US Elections: An Empirical Analysis of Design Techniques. *Abstracts of the ICA (European Cartographic Conference)*, 5, p. 126.
- Houtman L.** and RE Roth. 2021. Introducing a QGIS Technical Supplement for *Mapping for a Sustainable World*. *Abstracts of the ICA (International Cartographic Conference)*, 3, p. 113.
- Roth RE, CM Sack, G Baldrice-Franklin, Y Chen, R Donohue, **L Houtman**, T Prestby, R Tolochko, and N Underwood, 2021. Introducing Web Mapping: A Workbook for Interactive Cartography and Visualization on the Open Web. *Abstracts of the ICA (International Cartographic Conference)*, 3, p. 254.

## BOOK REVIEWS

- Houtman, L.** 2024. Review of *The Art of Insight: How Great Visualization Designers Think*. *Cartographic Perspectives*, 104, p. 70-73.
- Houtman, L.** 2024. Review of *Airline Maps: A Century of Art and Design*. *Cartographic Perspectives*, 103, p. 99-102.

## INVITED TALKS and LECTURES

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|--|-------------|
| <b>Invited Talk: “Techniques, challenges, and opportunities in mobile thematic map design for data journalism”</b> | Fall 2025   |
| <i>Department of Computing, Georgia Institute of Technology</i>  |             |
| Invited by Dr. Clio Andris for CS8803: Interactive Maps and Geovisualization                                       |             |
| <b>Guest Lecture: “Multivariate Maps”</b>  | Fall 2025   |
| <i>Department of Geography, The Pennsylvania State University</i>  |             |
| Invited by Dr. Alicia Iverson for GEOG 361: Introduction to Cartography  |             |
| <b>Invited Talk: “Art, Activism, and Cartography”</b>  | Fall 2025   |
| <i>Department of Sociology, American University</i>  |             |
| Invited by Dr. Felicia Henry for SOCY 358: Arts-Based Activism   |             |
| <b>Guest Lecture: “Multivariate Maps”</b>  | Spring 2025 |
| <i>Department of Geography, The Pennsylvania State University</i>  |             |
| Invited by Tim Prestby for GEOG 361: Introduction to Cartography   |             |
| <b>Guest Lecture: “Election Mapping - America in Red &amp; Blue”</b>   | Fall 2023   |
| <i>Department of Geography, The Pennsylvania State University</i>  |             |
| Invited by Dr. Anthony Robinson for GEOG 6N: Maps and the Geospatial Revolution                                    |             |
| <b>Guest Lecture: “Maps and Power”</b>   | Spring 2023 |
| <i>Department of Women, Gender, and Sexuality Studies, The Pennsylvania State University</i>                       |             |
| Invited by Dr. Jill Wood for WMNST 197: Creating Safer Campuses  |             |

## CONFERENCE PRESENTATIONS

**Houtman, L.** “Mobile Thematic Map Design: An Analysis of Young Adult Audiences Via Creative Focus Groups” *presented at* the American Association of Geographers Annual Meeting. March 2026. San Francisco, California.

**Houtman, L.** “Designing Non-Binary Maps to Reimagine Borderlands” *presented at* the 45th meeting of the North American Cartographic Information Society (NACIS). October 2025. Louisville, Kentucky.

**Houtman, L.** “Characterizing the current state of mobile thematic cartography” *presented at* the 32nd International Cartographic Conference (ICC). August 2025. Vancouver, Canada.

**Houtman, L.** “No Boundaries, No Borders: Creating Non-Binary Maps” *presented at* the No Boundaries Symposium. May 2025. State College, Pennsylvania.

**Houtman, L.,** Wright, M.W. “An Exercise in Non-Binary Maps” *presented at* the American Association of Geographers Annual Meeting. March 2025. Detroit, Michigan.

**Houtman, L.** “The Challenges and Opportunities of Designing News Maps for Mobile Devices” *presented at* the Computation and Journalism Symposium. October 2024. Boston, Massachusetts.

**Houtman, L.** “Discussing Current Limits and Future Opportunities in Mobile Map Design” *presented at* the 44th meeting of the North American Cartographic Information Society (NACIS). October 2024. Tacoma, Washington.

**Houtman, L.** “Future Opportunities for Mobile Thematic Map Design in Data Journalism” *presented at* EuroCarto. September 2024. Vienna, Austria.

**Houtman, L.** “Using Beescape NexGen: A Pollinator Health Decision-Support Tool” *presented at* the Technologies for Agriculture and Living Systems Symposium. May 2024. State College, Pennsylvania.

**Houtman, L.** “Mobile Thematic Cartography: Interviews on Design and Practice” *presented at* the American Association of Geographers Annual Meeting. April 2024. Virtual.

**Houtman, L.** “How Should We Design Mobile Thematic Maps” *presented at* the 43rd meeting of the North American Cartographic Information Society (NACIS). October 2023. Pittsburgh, Pennsylvania.

**Houtman, L.** “At the Intersection of Mobile Thematic Cartography and Data Journalism” *presented at* the 31st International Cartographic Conference (ICC). August 2023. Cape Town, South Africa.

**Houtman, L.** “The Challenges of Using AI to Promote Further Learning in Cartographic Education” *presented at* the Pre-Conference Workshop on Cartography and AI at the 31st International Cartographic Conference (ICC). August 2023. Stellenbosch, South Africa.

**Houtman, L.,** Prestby, T.J., McLaughlin, D., Robinson, A.C., & Grozinger, C. “Designing Beescape NexGen: A Geovisualization Tool to Support Pollinator Health” *presented at* the American Association of Geographers Annual Meeting. March 2023. Denver, Colorado.

**Houtman, L.** “How Should We Design Election Maps” *presented at* the 42nd meeting of the North American Cartographic Information Society (NACIS). October 2022. Minneapolis, Minnesota.

**Houtman, L.** “Mapping US Elections: An Empirical Analysis of Design Techniques” *presented at* EuroCarto. September 2022. Vienna, Austria.

**Houtman, L.** “Mapping Presidential Elections: An Empirical Analysis of Effective Design Techniques” *presented at* the American Association of Geographers (AAG) Annual Meeting. March 2022. Virtual.

**Houtman, L.,** Roth R.E. “Introducing a QGIS technical supplement for Mapping for a Sustainable World” *presented at* the 30th International Cartographic Conference (ICC). December 2021. Florence, Italy.

## PANEL DISCUSSIONS

Co-Moderator (*with* Meghan Kelly), “Cartographies of Interdependence: Intersectional Feminist Mapping in Community Struggles” *at* the 45th meeting of the North American Cartographic Information Society (NACIS). October 2025. Louisville, Kentucky.

Panelist, “LGBTQ+ in STEM Leading the Way” *at* The Pennsylvania State University. April 2025. State College, Pennsylvania.

Panelist, “The Future of University Cartography Labs 2: Student Experience and Creating New Spaces” *at* the American Association of Geographers Annual Meeting. April 2024. Virtual.

Panelist, “Diversity, Equity, and Inclusion II: Queer Cartography” *at* the 43rd meeting of the North American Cartographic Information Society (NACIS). October 2023. Pittsburgh, Pennsylvania.

Co-Moderator (*with* F.M. Kim), “Finding Queerness in GIS and Cartography” *at* the American Association of Geographers Annual Meeting. March 2023. Denver, Colorado.

## ORGANIZED WORKSHOPS and SESSIONS

Co-Organizer (*with* Alicia Iverson and Felicia Henry), “Introduction to Mapping for Social Change Workshop” *at* American University. April 2026. Washington, D.C.

Co-Organizer (*with* Silas Hill), “DEI Speaker Series: Cartographies of Interdependence: Intersectional Feminist Mapping in Community Struggles” *at* the 45th meeting of the North American Cartographic Information Society (NACIS). October 2025. Louisville, Kentucky.

Co-Organizer (*with* Gareth Baldrice-Franklin), “Unmapping Workshop”, NACIS Commons *at* the 45th meeting of the North American Cartographic Information Society (NACIS). October 2025. Louisville, Kentucky.

Co-Organizer (*with* Robert E. Roth, et al.), “T/U(X)W Design Challenge” *at* the Technical University of Vienna (TU Wien). May 2025. Virtual.

Co-Organizer (*with* Gareth Baldrice-Franklin), “Critical Cartographic Processes” *at* the American Association of Geographers Annual Meeting. March 2025. Detroit, Michigan.

Co-Organizer (*with* Gareth Baldrice-Franklin), “Unmapping: Creative and Critical Cartography for All”, NACIS Commons *at* the 44th meeting of the North American Cartographic Information Society (NACIS). October 2024. Tacoma, Washington.

Co-Organizer (*with* Zhaoxu Sui), “Putting the Human back in Cartography: Designs and Practices” *at* the American Association of Geographers Annual Meeting. April 2024. Virtual.

Co-Organizer (*with* Gareth Baldrice-Franklin), “Unmapping: Creative and Critical Cartography for All”, NACIS Commons *at* the 43rd meeting of the North American Cartographic Information Society (NACIS). October 2023. Pittsburgh, Pennsylvania.

Co-Organizer (*with* F.M. Kim), “Finding Queerness in GIS and Cartography” at the American Association of Geographers Annual Meeting. March 2023. Denver, Colorado.

## POSTER PRESENTATIONS

**Houtman, L.** “The Challenges and Constraints of Designing Mobile News Maps for Science Communication” *presented at* the Viral Movements Symposium. May 2024. State College, Pennsylvania.

**Houtman, L.** “Evaluating the Use and Production of Mobile News Maps” *presented at* the Pennsylvania State University College of Earth and Mineral Sciences NSF GRFP Poster Session. October 2023. State College, Pennsylvania.

**Houtman, L.** “Mapping Presidential Elections: An Empirical Analysis of Effective Design Techniques” *presented at* the 41st meeting of the North American Cartographic Information Society (NACIS). October 2021. Oklahoma City, Oklahoma.

**Houtman, L.** “Human Evolution in the East African Rift Valley” *presented at* the 41st meeting of the North American Cartographic Information Society (NACIS). October 2021. Oklahoma City, Oklahoma.

## TEACHING EXPERIENCE

**Project Mentor and Instructor: Independent Study** Spring 2026  
*Department of Geography, The Pennsylvania State University*  
 GEOG 494 - Research Project in Geography

**Curriculum Developer for Online Geospatial Education** Fall 2024  
*Online Geospatial Education Program, The Pennsylvania State University*  
 GEOG 486 - Cartography and Visualization (*with* Fritz Kessler and Marcela Suárez)

**Undergraduate Teaching Intern: Interactive Cartography** Fall 2021  
*Department of Geography, University of Wisconsin – Madison*  
 Geography 575 - Interactive Cartography and Geovisualization (*with* Robert. E Roth & Gareth Baldrice-Franklin)

**Undergraduate Teaching Intern: Introduction to Cartography** Fall 2021  
*Department of Geography, University of Wisconsin – Madison*  
 Geography 370 - Introduction to Cartography (*with* Robert E. Roth & Alicia Iverson)

## FELLOWSHIPS and GRANTS

\$13,000 **Interdisciplinary Approaches to Human-Environment Interaction** 2025-2026  
*The Pennsylvania State University Community, Science, and Society Initiative (CSSI)*  
 Collaborator, “Mapping Against the Binary in the Mexico-US Borderlands”

\$111,000 **Graduate Research Fellowship (GRFP)** 2024-2027  
*National Science Foundation (NSF)*  
 Awardee, “Evaluating the Use and Production of Mobile News Maps”

\$9,000 **Letters & Science Honors Mark Mensink Senior Honors Thesis Grant** 2021-2022  
*University of Wisconsin – Madison*  
 Awardee, “Mapping Presidential Elections: An Empirical Analysis of Design Techniques”

\$4,000 **McPherson Eye Research Institute Undergraduate Research Fellowship** 2021-2022  
*University of Wisconsin – Madison*  
 Awardee, “Mapping Presidential Elections: An Empirical Analysis of Design Techniques”

## HONORS, SCHOLARSHIPS, and TRAVEL SUPPORT

\$700	<b>Abler and Erickson Graduate Student Enrichment Funding Award</b> <i>Penn State University, Department of Geography</i>	2026
N/A	<b>Charles Hosler Diversity, Equity, and Inclusion Graduate Student Award</b> <i>Penn State University, College of Earth and Mineral Sciences (EMS)</i>	2026
\$500	<b>NACIS Student Travel Grant</b> <i>North American Cartographic Information Society</i>	2025
\$1,800	<b>USNC Early Career Scholar Funding for Participation at ICC</b> <i>US National Committee for the ICA</i>	2025
\$1,000	<b>ICA Young Scholars Funding for Participation at ICC</b> <i>Executive Committee of the ICA</i>	2025
\$50	<b>No Boundaries Symposium Award for Best Paper (Third Place)</b> <i>Penn State University, Department of Geography</i>	2025
\$1,500	<b>Penn State Graduate Student International Travel Grant</b> <i>Penn State Global</i>	2025
\$500	<b>Myers Award for Excellence in Cartographic Design</b> <i>Penn State University, Department of Geography</i>	2025
\$1,500	<b>Doctoral Student Scholarship Award</b> <i>Cartography and Geographic Information Society (CAGIS)</i>	2024
\$300	<b>Master's Thesis Research Grant</b> <i>Cartography and Mapping Speciality Group of the AAG</i>	2024
\$500	<b>NACIS Student Travel Grant</b> <i>North American Cartographic Information Society</i>	2024
\$5,000	<b>Penn State EMS NSF GRFP Proposal Poster Competition</b> <i>Penn State College of Earth and Mineral Sciences</i>	2023
\$500	<b>NACIS Student Travel Grant</b> <i>North American Cartographic Information Society</i>	2023
\$200	<b>NACIS Diversity, Equity, and Inclusion Travel Grant</b> <i>North American Cartographic Information Society</i>	2023
\$2,700	<b>USNC Early Career Scholar Funding for Participation at ICC</b> <i>US National Committee for the ICA</i>	2023
\$600	<b>ICA Young Scholars Funding for Participation at ICC</b> <i>Executive Committee of the ICA</i>	2023
\$5,000	<b>Fund for Excellence in Graduate Recruitment (FEGR)</b> <i>The Pennsylvania State University</i>	2022-2023
\$500	<b>NACIS Student Travel Grant</b> <i>North American Cartographic Information Society</i>	2022
\$100	<b>Excellence in the Department of Geography</b> <i>University of Wisconsin – Madison</i>	2022
\$100	<b>Achievement in in the Cartography/GIS Major</b> <i>University of Wisconsin – Madison</i>	2022
\$2,000	<b>USNC Early Career Scholar Funding for Participation at ICC</b> <i>US National Committee for the ICA</i>	2021
\$50	<b>Barbara Bartz Petchenik Award for Cartographic Design (First Place)</b> <i>University of Wisconsin – Madison</i>	2021
\$1,000	<b>Department of Geography Kohn Award</b>	2021

\$50	<i>University of Wisconsin – Madison</i> <b>Barbara Bartz Petchenik Award for Cartographic Design (Second Place)</b> <i>University of Wisconsin – Madison</i>	2020
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## SERVICE and LEADERSHIP

<b>Chair, NACIS Shop Initiative</b>	<i>North American Cartographic Information Society (NACIS)</i>	2025-present
<b>Co-Moderator (with Gareth Baldrice-Franklin), Practical Cartography Day</b>	<i>North American Cartographic Information Society (NACIS)</i>	2025
<b>NACIS Board Director-At-Large</b>	<i>North American Cartographic Information Society (NACIS)</i>	2024-present
<b>NSF GRFP Workshop Peer Mentor</b>	<i>College of Earth and Mineral Sciences, The Pennsylvania State University</i>	2024-present
<b>Coffee Hour (Colloquium) Graduate Student Committee Member</b>	<i>Department of Geography, The Pennsylvania State University</i>	2024-present
<b>Co-Moderator (with Nat Douglass), Practical Cartography Day</b>	<i>North American Cartographic Information Society (NACIS)</i>	2024
<b>Justice, Equity, Diversity, and Inclusion (JEDI) Student Representative</b>	<i>American Association of Geographers (AAG)</i>	2023-present
<b>Supporting Women in Geography (SWIG) President</b>	<i>Department of Geography, The Pennsylvania State University</i>	2023-present
<b>Graduate Student Representative</b>	<i>Department of Geography, The Pennsylvania State University</i>	2023-2024
<b>Supporting Women in Geography (SWIG) Board Member</b>	<i>Department of Geography, The Pennsylvania State University</i>	2022-2023
<b>Social Media Coordinator and Board Member</b>	<i>Geography Club, University of Wisconsin-Madison</i>	2021-2022
<b>External Relations Committee Undergraduate Student Representative</b>	<i>Department of Geography, University of Wisconsin-Madison</i>	2021-2022

## PEER REVIEW

<i>GeoHumanities</i>	2025-present
<i>International Journal of Geographical Information Science</i>	2024-present
<i>Cartographic Perspectives</i>	2024-present
<i>Cartography and Geographic Information Science (CaGIS)</i>	2024-present

## TECHNICAL SKILLS

### Web Development and Cartography

- JavaScript (*including Leaflet and D3 map libraries*)
- HTML/CSS/CSS
- FrontEnd Web Frameworks (*Bootstrap, Vue*)
- QGIS
- Esri Suite (*ArcGIS JS API, ArcGIS Pro, AGOL, StoryMaps*)
- Git/GitHub

**Data Visualization and Analysis**

- Inkscape
- Adobe Creative Cloud (*Illustrator, Photoshop, InDesign*)
- R and RStudio
- Tableau
- Blender
- Microsoft Excel

**MEMBERSHIPS**

<b>Cartography and Geographic Information Society (CaGIS)</b>	2024-present
<b>American Association of Geographers (AAG)</b>	2021-present
<b>International Cartographic Association (ICA)</b>	2021-present
<b>The Phi Beta Kappa Society (PBK)</b>	2021-present
<b>North American Cartographic Information Society (NACIS)</b>	2020-present