

Meirah Williamson

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Education

PhD Geography , University of New Mexico, Albuquerque, NM	Expected May 2028
• Adviser: Dr. Yolanda C. Lin	
MS Geography , University of Florida, Gainesville, FL	August 2021
• Committee: Dr. Esther Mullens (Chair), Dr. Kevin Ash, Dr. Peter Waylen • Thesis: Damages Associated with Excessive Rainfall Outlooks (ERO) and Missed Flash Floods	
BS Atmospheric and Oceanic Science , University of Wisconsin, Madison, WI	December 2017
• Certificate: Environmental Studies	

Research Experience

Research Assistant , University of New Mexico	January 2025 – present
• Develop models to assess viability of Controlled Environment Agriculture (CEA) • Lead literature reviews on modeling and social dimensions of CEA	
Center for Community Geography Fellow , University of New Mexico	January 2025 – May 2025
• Developed food access maps in collaboration with Bernalillo County • Presented maps at neighborhood meetings and incorporated community feedback	
Hazard Mitigation and GIS Analyst , Illinois State Water Survey, Champaign, IL	October 2021 – August 2024
• Developed multi-jurisdictional hazard mitigation plans (HMP) for FEMA • Developed a hazard risk assessment methodology for the State of Illinois HMP • Led participatory mapping activities with community partners to identify hazard risk • Collaborated with communities to identify hazard mitigation strategies	
Graduate Research Assistant , University of Florida	August 2019 - May 2021
• Performed independent research on flash floods, forecasting, and community impacts • Analyzed and processed large datasets using Python, ArcGIS, and Linux	
Research Affiliate , Lawrence Berkeley National Laboratory	August 2019 - May 2021
• Evaluated accuracy of forest ecosystem models using Python	

Professional Work Experience

Hazard Mitigation and GIS Analyst , Illinois State Water Survey, Champaign, IL	October 2021 – August 2024
• Developed multi-jurisdictional hazard mitigation plans (HMP) for FEMA • Developed a hazard risk assessment methodology for the State of Illinois HMP • Led participatory mapping activities with community partners to identify hazard risk and develop mitigation strategies • Collaborated with engineers, public officials, and community members	

Teaching Experience

Center for Community Geography Fellow , University of New Mexico	January 2025 – May 2025
• Mentored undergraduate student in data analysis and mapping using ArcGIS	
Graduate Teaching Assistant , University of New Mexico	August 2024 – March 2025
• Moderated student presentations and led group discussions • Graded and provided detailed feedback on essays and assignments	
Graduate Teaching Assistant , University of Florida	May - August 2019, 2021
• Graded and provided detailed feedback on essays and assignments • Received positive student evaluations	
Student Athlete Tutor , University of Florida Athletics Department	January 2020 - May 2021
• Tutored student athletes in college algebra, spatial statistics, and GIS	

Awards and Fellowships

Charles Griffith Graduate Fellowship in Science and Technology (\$22,000) <i>University of New Mexico</i>	August 2024 – May 2027
2nd Place Student Oral Presentation (\$75) <i>35th Conference on Hydrology, 101st American Meteorological Society Annual Meeting</i>	January 2021
Research Excellence Award (\$1,000) <i>Department of Geography, University of Florida</i>	December 2020
Lettau-Wahl Scholarship Award (\$2,633.40) <i>Department of Atmospheric and Oceanic Sciences, University of Wisconsin - Madison</i>	May 2017
William Wielgus Scholarship Award (\$1,000) <i>Department of Music, University of Wisconsin - Madison</i>	May 2016

Publications

Journal Articles

Williamson, M., Ash, K., Erickson, M. J., & Mullens, E. (2023). Damages Associated with Excessive Rainfall Outlooks (ERO) and Missed Flash Floods. *Weather and Forecasting*, 38(6), 971-984. 10.1175/WAF-D-22-0035.1

Williamson, M., & Kucharik, C. J. (2023). Urban Warming Challenges Verification of Frost Advisories and Freeze Warnings in Madison, Wisconsin. *Weather and Forecasting*, 38(6), 1011-1023. 10.1175/WAF-D-22-0164.1

Public Reports

Illinois State Water Survey (**Williamson, M.** – contributor). (2024). 2024 Bond County Hazard Mitigation Plan.* <https://uofi.app.box.com/s/ube5y6z21t8l58abqz9ye8dhgmaxi2zj>

Illinois State Water Survey (**Williamson, M.** – contributor). (2024). 2024 Cass County Hazard Mitigation Plan.* <https://uofi.app.box.com/s/swiu1ts6h76jjkmfwbd7uiv05yjiob8d>

University of Illinois Extension, Illinois State Water Survey (**Williamson, M.** – contributor), Illinois State Geological Survey. (2023). 2023 Illinois Natural Hazard Mitigation Plan.* <https://iemaohs.illinois.gov/content/dam/soi/en/web/iemaohs/recovery/documents/plan-illmitigationplan.pdf>

Illinois State Water Survey (**Williamson, M.** – contributor). (2023). 2023 Richland County Hazard Mitigation Plan.* <https://uofi.app.box.com/s/ube5y6z21t8l58abqz9ye8dhgmaxi2zj>

Illinois State Water Survey (**Williamson, M.** – contributor). (2023). 2023 Washington County Hazard Mitigation Plan.* <https://uofi.app.box.com/s/swiu1ts6h76jjkmfwbd7uiv05yjiob8d>

* internally reviewed

Conferences

Williamson, M. & Lin, Y.C. (2025). Community Disaster Resilience Zones and Place-Based Models. Oral Presentation. *Community-Based Hazard Adaptation Planning, American Association of Geographers Annual Meeting, 24-28 April 2025.*

Williamson, M. & Arnold, C. (2024). Maintaining the Momentum: From Planning to Action to Achieve Resilience. Oral Presentation. *Illinois Association of Floodplain and Stormwater Management, 12-13 March 2024.*

Williamson, M., Ash, K., Erickson, M.J., & Mullens, E. (2021). How Much do Flash Flooding Events Outside of an Excessive Rainfall Outlook (ERO) Matter? Oral Presentation. *Hazards, Risks, and Disasters: Winter Weather & Forecasting, American Association of Geographers Annual Meeting, virtual meeting, 7-11 April 2021.*

Williamson, M., Ash, K., Erickson, M.J., & Mullens, E. (2021). How Much do Flash Flooding Events Outside of an Excessive Rainfall Outlook (ERO) Matter? Oral Presentation. (13A.3) *35th Conference on Hydrology, 101st American Meteorological Society Annual Meeting, virtual meeting, 10-15 January 2021.*

Williamson, M. & Ash, K., Erickson, M.J., & Mullens, E. (2021). How Much do Flash Flooding Events Outside of an Excessive Rainfall Outlook (ERO) Matter? Poster Presentation. *Human, Physical, Methods, Southeastern Division of the American Association of Geographers, virtual meeting, 6-7 November 2020.*

Service

Panel Moderator , GIS Day, University of New Mexico	November 2025
Moderated a panel of graduate students at GIS Day where Rio Grande High School students and Southwestern Indian Polytechnic Institute undergraduates asked questions about studying geography in college and geography careers	
Secretary , SAGES, University of New Mexico	September 2025 - August 2026
- Apply and obtain funding for students to attend conferences with the Student Association of Geography and Environmental Studies (SAGES) - Manage Outlook calendar and email account	
Open House Coordinator , ASPIRE, University of New Mexico	August 2025 - May 2026
- Organized the fourth annual Open House for the Center for Advancement of Spatial Informatics Research and Education (ASPIRE) - Solicited poster presentations, created promotional fliers, invited ASPIRE partners to table	
Poster Judge , UROC, University of New Mexico	April 2025
Provided feedback for poster presenters at the Undergraduate Research Opportunity Conference (UROC)	
Data Team Member , United Graduate Workers, University of New Mexico	August 2024 – present
- Lead survey of graduate workers that identified union bargaining priorities - Co-authored a report on union bargaining priorities and a report on graduate worker income that was presented to the New Mexico Legislature	
Volunteer and Session Lead , Books to Prisoners, Urbana, IL	July 2022 – July 2024
- Trained volunteers to respond to book requests from people incarcerated in Illinois - Co-lead sessions of up to 10 volunteers	
Volunteer , Skype a Scientist, Virtual	August 2020 – August 2021
Presented research to elementary school students in a fun and accessible manner	

Membership

American Association of Geographers (AAG)
American Meteorological Society (AMS)
Illinois Association for Floodplain and Stormwater Management (IAFSM)

Skills

Programming Languages	Software	Other
HTML	ArcGIS	Cartography
JavaScript	GoldSim	Communication
Latex	MAXQDA	Project Management
Python	Microsoft Office Suite	Transdisciplinary Research
	QGIS	
	Qualtrics	