

Tiffany Cousins

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[Google Scholar Profile](#)

Education

Ph.D. Planning, Governance, and Globalization, Virginia Tech 2025
Disaster Resilience and Risk Management Scholar
Dissertation: "Filling in the Gaps: A Participatory Approach to Flood Mapping"

Master of Urban Planning, Texas A&M University 2016
Graduate Certificate in Environmental Hazard Management
Graduate Certificate in Geographic Information Systems (GIS)

Bachelor of Science Geosciences; Geography University of Connecticut 2014
Concentration: Geophysics; Geographic Information Systems (GIS)

Employment History

GIS Lab Director, *Hofstra University*

Part-Time September 2023 – Present

- Initiated an issue management system to monitor and maintain hardware and software in departmental facilities weekly and as needed.
- Monitor and maintain the hardware and software in Department GIS labs by coordinating GIS supply orders, assisting with student poster preparation for class presentations and conferences, and overseeing student assistants' organization of classroom tools and maps as needed.
- Created and maintained the Department's GitHub to showcase student projects, share code, and maintain a data repository and a space for students to hold their data.

Adjunct Instructor, *Hofstra University*

Part-Time February 2023 – Present

- Instructed undergraduate/graduates in Introduction to GIS and Intermediate GIS
- Instructed and supervised undergraduate/graduate students in the lab, focusing on the application of GIS and technical use of ArcGIS
- Assessed and graded labs, practical exams, final projects, and presentations and provided constructive feedback to support student learning.
- Received positive feedback from students and faculty for effective teaching and clear communication of complex concepts and for providing an engaging classroom atmosphere

GIS and Research Analyst, *New York State Governor's Office of Storm Recovery*

Part-Time August 2019 – September 2023

- Provide project management support throughout research projects, including data preparation, GIS development, learning, and running new software like HAZUS and FAST.
- Assists in data quality management and ad hoc data analysis to support program operations, Service Area mapping, and National Objection determination. It also serves as an ad hoc mapping

- analyst for non-CDBG-DR grant applications and supports mapping the Match programs.
- Developing standard operating procedures to aid in documenting processes
- Conducted unmet needs analysis for an Action Plan amendment.
- Created the flood inundation layer for Hurricane Ida to support grant needs
- Research team: conducted a loss avoidance study assessing increased resiliency and reduced economic loss along New York's shorelines, considering the impact of the agency's recovery interventions and future climate scenarios
- Presented research findings to federal and local stakeholders
- Developing GIS-based tools and processes to support decision-making and research.

Research and Strategic Analysis Intern, *Governor's Office of Storm Recovery*

Part-Time June 2019 – August 2019

- LMI re-evaluation: assisting RSA with the re-evaluation of Community Reconstruction and Infrastructure projects using ACS data
- LMI residential maps - assisting RSA with the residential mapping of Community Reconstruction and Infrastructure projects for those identified as benefiting Low-Moderate Income (LMI) households.
- FEMA Public Assistance (PW) evaluations: assisting with evaluating the ~300 FEMA PWs identified by the program without complete LMI documentation on file.

Legal Billing Analyst, *Kaufman, Dolowich, and Voluck LLP*

Full-Time April 2017 – August 2018

- Accounts Receivable

Staff Planner, *City of College Station*

Full-Time June 2016 – February 2017

- Assist and advise the public concerning any planning or development-related issues.
- Enforces and interprets development codes through development review proposals
- Produce written and oral presentations to the City's Boards and Commissions.
- Performs field inspections to verify zoning compliance or gather data for plans/projects.
- Assist in the preparation and maintenance of plans, projects, and reviews for compliance with the goals and objectives of the City's Comprehensive Plan.

Participatory Mapping Project Manager, *Texas A&M University*

Part-Time September 2014 – June 2016

- Training high school students to use Collector for ArcGIS through in-class presentation and in-field manual
- Developed and deployed maps through ArcGIS Online, Survey 123, Collector for ArcGIS for in-field data collection
- Designed and developed a data collection process for gathering rainfall data, then analyzed to identify areas for infrastructure improvement.
- Coordinated with stakeholders and research team members for in-field data collection post-rain event
- Surveyed community members on their awareness of climate change
- Designed route map to complete neighborhood survey using Network Analysis

Other Experience:

- Geographic Information Systems (GIS) Intern, *New York City Department of Environmental Protection (Summer of 2014)*
- Census & Geospatial Data Assistant, *MAGIC, and Connecticut State Data Center (December 2013 – May 2014)*
- Geospatial Student Aid, *Assistant Professor in Geography Debarchana Ghosh, PhD (Fall of 2013)*
- Spatial Index Development Intern, *MAGIC and Connecticut State Data Center (Fall of 2013)*

Contract Work:

- Geospatial and Natural Hazards Specialist, *Blue Glacier Security & Intelligence, LLC April 2017 – Present*
 - Geospatial analysis for the company's enterprise security risk assessments
 - Developed the company's first [interactive risk assessment](#) maps on Mapbox
 - Initiated the development of a location-based safety and security app
 - GIS strategic planning
- Graduate Research Assistant, *William Averette Anderson Fund November 2023 – August 2024*
 - Project: [A Comparison of Vulnerability Maps Used by Federal Agencies to Allocate Climate Resilience Resources](#).
 - Compare the Federal Emergency Management Agency's Community Disaster Resilience Zones (CDRZ), the White House Council on Environmental Quality's Climate and Economic Justice Screening Tool (CEJST), and Headwaters Economics' Rural Capacity Map climate vulnerability maps and assess what they tell us and how they are used to support decision-making and equitable investments in climate resilience.
 - Writing Python scripts to clean and prepare data for us (the team) to analyze and present to Headwaters Economics.
- Sr. GIS Analyst, *Bay Park Data Solutions December 2023 – Present*
 - Help with developing models and scripts to automate client process
 - Developing surveys in Survey 123 for participant data collection

Skills:

- GIS – ArcGIS, Web Mapping/ArcGIS Online, Survey 123, Spatial Analysis, Model Builder
- Training/Teaching
- Research
- Programming: R, Python
- Data curation and analysis
- Technical Documentation
- Web Development – HTML, CSS, JavaScript

Publications:

1. Cowell, M., & Cousins, T. (2022). Equity and the Chief Resilience Officer in the era of 100 Resilient Cities: A qualitative comparative analysis of US resilience strategies. *Cities*, 131, 103946. <https://doi.org/10.1016/j.cities.2022.103946>
2. Meyer, M. A., Hendricks, M., Newman, G. D., Masterson, J. H., Cooper, J. T., Sansom, G., ...

Cousins, T. (2018). Participatory action research: tools for disaster resilience education. *International Journal of Disaster Resilience in the Built Environment*, 9(4–5), 402–419. <https://doi.org/10.1108/IJDRBE-02-2017-0015>

Presentations:

- 2024 Making Mitigation Work: A Missing Ingredient: Adding Capacity to the Federal Vulnerability Mapping Mix
- 2024 Spatial Data Science Conference Bootcamp NYC: Leveraging Python for Spatial Data Science
- ISA World Congress 2023: Utilizing Citizen Participation to Manage Pluvial Flooding
- URBP 7871R-01 Spring 2023: Lecture on GIS and Coastal Flood Management @ Hunter College
- 2022 NSBPA Northeast Coastal Conference: “Hurricane Sandy – 10 Years Later”: Shoreline Resiliency: Reducing Risk & Avoiding Loss in Coastal Communities
- 2021 Natural Hazards Workshop Poster Session: Not Everyone Can Social Distance
- ESRI Black History Month 2020: Accessing Neighborhood Flooding
- 2019 ACSP: How Chief Resilience Officers Shape Resilience Strategies In The Era Of 100RC

Undergraduate Student Committee:

- Nicholas Lucchetto, 2024
Role: Advisor
Degree: B.A Geography (GIS), B.A Global Studies
Title: Ride, Sink, or Swim: Studying the Impact of Flooding on Bus Performance in Queens.