Adam B. Gallaher

Ph.D. Candidate

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RESEARCH INTERESTS

Energy Transitions, Geographic Information Science, Spatial Temporal Analysis, Electric Grid Resilience and Reliability, Human-Environment Interactions, Electric Vehicle Adoption

EDUCATION

Ph.D. – University of Connecticut, Geography (Expected Spring 2023)

2019 - present

- Advisor: Chuanrong (Cindy) Zhang, Ph.D.
 - NSF NRT Fellow: Building Resilient Landscapes for Food, Energy, Water, and Ecosystem Services in America's Original Megalopolis

M.S. – Central Michigan University, Geography and Environmental Studies 2017 – 2019

• Thesis: "Spatial Statistical Analysis of Grid Optimization in Connecticut, Quantifying the Relationship Between Tree Trimming and Power Outages" Advisor: Marcello Graziano, Ph.D.

B.S. – Central Michigan University, Geography and Environmental Studies

2012 - 2017

GPA 3.48

- Major, Environmental Studies
- Minors, GIS, Environmental Policy and Sustainability

Iceland: Renewable Energy, Technology, and Resource Economics

Summer 2016

RESEARCH EXPERIENCE

Connecticut Transportation Safety Research Center

• Graduate Research Assistant

2019 - 2021

- Developed ArcGIS online web app for CTDOT
- o Integrated GIS data from CTDOT to ArcGIS online
- Developed Operations Dashboard for ADA curb ramp compliance
- o Assets include: ADA curb ramps, guiderails, and traffic signals

UConn Geography

• Graduate Research Assistant

2020 - present

- o Developed public facing covid-19 dashboard for Connecticut
- o Complied daily cases, deaths, and hospitalizations
- o Performed space-time analysis of covid-19 in Connecticut
- o Link to covid-19 dashboard

Central Michigan University

- *Graduate Research Assistant* **2018 2019**
 - o Collected, aggregated, and analyzed utility data
 - o Collected and aggregated meteorological and LCLU data
 - o Mapped relationship between power outages and tree trimming
- Graduate Research Assistant, Great lakes Institute for Sustainable Systems **2017 2019**
 - Compiled sustainability efforts of various departments at CMU
 - o Revised and updated previous Sustainability is Central report
 - o Attended Clinton Global Initiative University, 2018

TEACHING EXPERIENCE

- Instructor on Record, University of Connecticut Fall 2022
 - o Introduction to Geography (GEOG 1000)
- Graduate Teaching Assistant in the Department of Geography 2017 2018
 - o Introduction to GIS, GIS II, Physical Geography, Latin America

PEER-REVIEWED PUBLICATIONS

- **Gallaher, Adam,** Marcello Graziano, Stephen Axon, Amanda Bertana. (2022) Breaking wind: A comparison between U.S. and European approaches in offshore energy leadership in the North Atlantic region. *Renewable & Sustainable Energy Reviews* (under review)
- Gallaher, Adam, Marcello Graziano, Maurizio Fiaschetti. (2021) Legacy and Shockwaves: A spatial analysis of strengthening resilience of the power grid in Connecticut. *Energy Policy*, 159: 112582. DOI: https://doi.org/10.1016/j.enpol.2021.112582
- Chen, Xiang, Aiyin Zhang, Hui Wang, **Adam Gallaher**, and Xiaolin Zhu. (2021) Compliance and containment in social distancing: mathematical modeling of COVID-19 across townships. *International Journal of Geographical Information Sciences*, 35:3, 446-465. DOI: https://doi.org/10.1080/13658816.2021.1873999
- Graziano, Marcello, Peter Gunther, **Adam Gallaher**, Fred V. Carstensen, and Brian Becker. (2020) The wider regional benefits of power grids improved resilience through tree-trimming operations evidences from Connecticut, USA. *Energy Policy*, 138: 111293. DOI: https://doi.org/10.1016/j.enpol.2020.111293

BOOK CHAPTERS AND REPORTS

- Adams, Aaron, Debarchana Ghosh, Xiang Chen, Weidong Li, Chuanrong Zhang, **Adam Gallaher**, Ashley Benitez Ou. "Using Geospatial Visualizations to Better Understand Public Health Data" in *Spatial Literacy in Public Health*. Chicago, IL: ACRL, forthcoming 2023.
- **Gallaher, Adam**. "Energy Security Act of 1980" in *Energy in American History: A Political, Social, and Environmental Encyclopedia*. London, UK: Bloomsbury, forthcoming 2023.
- Rohrer, T; Gallaher, A; Van Meter A (2018). Sustainability is Central Volume IV: 2018

POPULAR WRITING

- **Gallaher, Adam.** "Heat pumps could help state energy challenges" *Hartford Courant,* December 13, 2022. https://www.courant.com/opinion/op-ed/hc-op-heat-pumps-help-during-energy-rate-spikes-20221213-cck/mixqqzb7nhg5ovh5u6iwma-story.html
- Gallaher, Adam. "Commentary: Clean energy can help solve New England's natural gas woes" Energy News Network, February 11, 2022. https://energynews.us/2022/02/11/commentary-clean-energy-can-help-solve-new-englands-natural-gas-woes/
- Gallaher, Adam. "Are Connecticut consumers ready for electric vehicles?" *Hartford Courant*, January 18, 2022. https://www.courant.com/opinion/op-ed/hc-op-electric-vehicle-industry-01152022-20220118-ci42u6hklnephnmux6tuvvbmqa-story.html

PRESENTATIONS AND PANELS

American Association of Geographers

Denver, CO

• **Gallaher**, **Adam**; Carol Atkinson-Palombo, Lyle Scruggs, Marcello Graziano. Walking the walk: An analysis of the drivers, barriers, and directions of the Connecticut EV market, 2013-2020. 2023

NESTVAL Salem, MA

• Gallaher, Adam; Marcello Graziano, Stephen Axon, Amanda Bertana. Breaking Wind: A comparison between the U.S. and European offshore wind development. 2022

C2E2 Clean Energy Symposium

Storrs, CT

• Gallaher, Adam; Sarah Klionsky, Yan Chen, Chuanrong Zhang, Mark Urban. Sustainable Solar Siting in Connecticut: Ecological, Energy, and Economic Trade-offs. 2022 (Poster)

Loyola Climate Change Conference

Virtual

• Gallaher, Adam; Sarah Klionsky; Yan Chen. Sustainable Solar Siting in Connecticut: Ecological, Energy, and Economic Trade-offs. 2022 (Poster)

American Association of Geographers

Virtual

 Gallaher, Adam. Energy Landscapes: Making use of marginal lands in Connecticut for sustainable energy transitions. 2022

Eversource Energy Center Annual Meeting

Storrs, CT

• Gallaher, Adam. Legacy and shockwaves: A spatial analysis of strengthening resilience of the power grid in Connecticut. 2021

NESTVAL Virtual

• Gallaher, Adam. Legacy and shockwaves: A spatial analysis of strengthening resilience of the power grid in Connecticut. 2021

University Consortium for GIS

Virtual

• Gallaher, Adam. Estimating Second-Generation Biofuel Feedstock Production on Marginal Lands in Connecticut. 2021

American Association of Geographers

Virtual

• Gallaher, Adam; Marcello Graziano, and Marta Musso. Energy Transitions Across Four OECD Countries. 2021

CT GIS Day Virtual

• Gallaher, Adam; Aaron Adams; Ashley Benitez Ou; Debs Ghosh. Town Level Interactive Dashboard to Track COVID-19 in Connecticut. 2020

NESTVAL

Framingham, MA

• Gallaher, Adam. Spatial Statistical Analysis of Grid Optimization in Connecticut - Quantifying the Relationship Between Tree Trimming and Power Outages. 2019

Energy Research and Social Science

Tempe, AZ

• Gallaher, Adam. Spatial Statistical Analysis of Grid Optimization in Connecticut - Quantifying the Relationship Between Tree Trimming and Power Outages. 2019

Student Research and Creative Endeavors Exhibition

Mount Pleasant, MI

• Gallaher, Adam; Amber Van meter; Thomas Rohrer. Sustainability is Central. 2019

American Association of Geographers

Washington, D.C.

• Gallaher, Adam. Spatial Statistical Analysis of Grid Optimization in Connecticut - Quantifying the Relationship Between Tree Trimming and Power Outages. 2019

INVITED PRESENTATIONS

American Association of Geographers

Virtual

• **Invited Panelist.** Connecticut Redistricting with Geographers: Mapping for Equity and Inclusion. 2021

Geospatial Fellows Webinar Series

Virtual

• Xiang, Chen; Gallaher, Adam Modeling COVID-19 Infections across Township with Social Distancing Metrics. 2021

Central Michigan University

Virtual

• Invited Panelist. Earth Week Alumni Panel. 2021

PROFESSIONAL SERVICE

AAG Energy and Environment Specialty Group (EESG) Outreach Coordinator and Graduate Student Representative

Team-TERRA Social Media and Communication Co-Chair

TECHNICAL SKILLS

Geomatics: Panel Analysis, Spatial Statics, Spatial econometrics

Software: ArcGIS Pro, ArcMAP, AGOL/Portal, GEODA, Google Earth, Mapbox

Computing: STATA, R, Python

AWARDS

UConn Institute of the Environment MERGAS Award (\$8,000), 2022

EnGRG Outstanding Research Design and Methods Award (Highly Commended), 2022

Provost's Award for Excellence in Community Engaged Scholarship, 2022

AAG Energy & Environment Specialty Group Dissertation Data & Fieldwork Award (\$250), 2022

UConn Graduate School Conference Participation Award (\$1,000), 2021

UCGIS Student Paper Award (2nd place) (\$100), 2021

Graduate Outstanding Community Engagement Award (\$100), 2021

CT GIS Day People's Choice Award (2nd place), 2020

Graduate Student Outstanding Service Award, 2020

Department of Geography Graduate Assistantship (UConn), 2019 - present

ERSS Conference Support Grant (\$300), 2019

Department of Geography Graduate Assistantship (CMU), 2017-2019

College of Science & Engineering Travel Scholarship (\$500), Summer 2016

CMU President's Award, 2012

MEDIA

UConn Today "Graduate Students Awarded Multidisciplinary Environmental Research Funding" March 1st, 2023. <u>Found here</u>

UConn Today "Community engagement awards recognize faculty, staff, and students" May 25th, 2022. Found here

NBC Connecticut "Routine Tree Trimming Does Help Reduce Power Outages, Study Finds" December 20th, 2021. Found here

UConn Today "Study: Tree Trimming Pays Dividends for Eversource Customers" December 16th, 2021. Found here

UConn Today "UConn Researcher Develops Town-Level Model for COVID-19 in Connecticut" January 26th, 2021. <u>Found here</u>

NBC Connecticut "New Haven App Adds New Way to Submit COVID-19 Concerns" April 6th, 2020. Found here

CMU News "Greener CMU on world stage" November 15th, 2018. Found here

COMMITTEES AND PROFESSIONAL MEMBERSHIPS

AAG	2021 – present
AAAS	2017 – 2020
Take Back the Tap	2016 – 2017

- Executive Board Social Media Chair
- Recruitment committee member

Student Environmental Alliance

2016 - 2017

- Executive Board Social Media Chair
- Recruitment committee member