DIMITRIOS GOUNARIDIS

School for Environment and Sustainability (SEAS)
University of Michigan
520 E. Liberty | Ann Arbor, MI 48109

EDUCATION

2018	Ph.D.	Geography	University of the Aegean
2012	M.Sc.	Geography and Applied Geo-informatics	University of the Aegean
2009	B.Sc.	Forestry and Natural Environment	International Hellenic University

PROFESSIONAL APPOINTMENTS

2025 – Present	**Assistant Research Scientist** School for Environment and Sustainability (SEAS), University of Michigan
2024 – Present	**Lecturer** School for Environment and Sustainability (SEAS), University of Michigan
2023 – 2025	**Research Area Specialist** Geospatial Data Scientist for Sustainability. School for Environment and Sustainability (SEAS), University of Michigan
2018 – 2023	**Postdoctoral Research Fellow** Urban Sustainability Research Group. School for Environment and Sustainability (SEAS), University of Michigan
2013 – 2018	**Ph.D. Researcher** Spatial Analysis, Geographic Information Systems and Remote Sensing (SAGISRS) lab. Department of Geography, University of the Aegean
5/2014 – 8/2014	**Teaching assistant** Aegean Research Unit, fixed term contact. Teaching assistant in undergraduate and graduate level (see teaching experience)

HONORS AND RECOGNITION

2018	H2020 Marie Sklodowska-Curie Actions Seal of Excellence, high-quality label awarded to project proposal (score received 88,80%)
2013	Scholar of the Greek State Scholarships Foundation, Ph.D fellowship
2013	Scholar of the ERASMUS Lifelong Learning Program. Visions of Land Use Transitions in Europe Ph.D. Summer School Course. University of the Aegean, Mytilene, Greece
2011	Scholar of the ERASMUS Lifelong Learning Program. GISLERS Summer School - Bridging GIS, Landscape Ecology and Remote Sensing for Landscape Planning. Z_GIS Department of Geoinformatics, Salzburg, Austria
2010	Scholar of the Greek State Scholarships Foundation, MSc fellowship. First place in written competition (courses: Forest Policy and Economics, Forest Biometrics, Forest Management)

RESEARCH FUNDING

Extramural Grants

2024 – 2026	Forest Futures: Geospatial data science and artificial intelligence for sustainable forestry in Michigan. USDA NIFA McIntire-Stennis Research Program 2025. Amount: $140,000. Role: Co-Principal Investigator
2023 – 2025	Assessing blue gentrification in Michigan's coastal communities. National Oceanic and Atmospheric Administration (NOAA) – Michigan Sea Grant. Amount: $220,000. Role: Co-Investigator
2019 – 2021	Expanding green infrastructure as a response to environmental injustice and climate change. USDA NIFA McIntire-Stennis Research Program 2019. Amount: $140,000. Role: Co-Principal Investigator
2018 – 2021	Sustainability Research Network (SRN): Integrated urban infrastructure solutions for environmentally sustainable, healthy and liveable cities. National Science Foundation (NSF). Role: Senior Personnel
2017 – 2022	The Sustainability Hoofprint of Cities: A Spatial Model to Assess Transboundary Urban Consumption. National Science Foundation (NSF). Role: Senior Personnel
2017 – 2018	Mapping and spatial analysis of tea plantations in the UNESCO Global Geopark in Ningde, China using remote sensing techniques. Role: Research Assistant
2015 – 2016	Sustainable futures for Europe's heritage in cultural landscapes: Tools for understanding, managing, and protecting landscape functions and values – HERCULES. EU FP7. Role: Research Assistant
2014 – 2016	Total costs of climate changes CLIMATECOST: Mapping urban land cover of coastal Greece, using remote sensing techniques. EU FP7. Role: Research Assistant

Intramural Grants

2026 – 2028	The Global Supply Chain Intelligence Institute. OVPR's Impact Institute Seed Stage. Amount: $200,000. Role: Co-Principal Investigator
2025 – 2027	SAGE: A Scalable GeoAI Framework for Zero-Shot Mapping of Lithium Mines. Michigan Institute for Data Science (MIDAS) Propelling Original Data Science (PODS). Amount: $70,000. Role: Co-Principal Investigator
2025 – 2026	Geospatial Data Pilot Study in Old Fadama, Accra. University of Michigan Graham Sustainability Institute Catalyst Grants. Amount: $15,000. Role: Co-Investigator
2024 – 2027	Life-cycle analysis synthesized with ecosystems and risk focused on sustainable forestry. Institute for Global Change Biology, University of Michigan. Amount: $1,500,000. Role: Co-Investigator
2024 – 2025	Geospatial data pilot study in Old Fadama, Acraa. LSA African Studies Center - STEM Africa. Amount: $6,000. Role: Co-Investigator
2024 – 2025	The sustainable mineral supply chain research-action network. School for Environment and Sustainability Themes Funds 2024. Amount: $25,000. Role: Co-Investigator
2023 – 2024	Critical minerals for electric vehicles and decarbonization: sustainable and environmentally-just supply chains**.** OVPR's Bold Challenges BOOST 2023-2024

	cohort. Office of the Vice President for Research. Amount: $75,000. Role: Co-Investigator
2022 – 2023	Mapping community vulnerability to climate change. School for Environment and Sustainability Themes Funds 2022. Amount: $70,000. Role: Co-Principal Investigator
2021 – 2022	Google Cloud Platform (GCP) credits for: Using geospatial data science to identify vulnerable communities to climate change. Michigan Institute for Data Science (MIDAS) Propelling Original Data Science (PODS). Amount: $20,000. Role: Co-Principal Investigator
2021 – 2022	Using Geospatial Data Science to Identify Vulnerable Communities to Climate Change. Michigan Institute for Data Science (MIDAS) Propelling Original Data Science (PODS). Amount: $70,000. Role: Co-Investigator
2014 – 2015	Population density grid of Greece, employing spatial analysis methodologies. Aegean Research Unit. Role: Research Assistant

PUBLICATIONS

Refereed Journal Articles

* MSc and PhD mentees

36. Checkoway, S., Keoleian, G., **Gounaridis, D**., Masoud, N. and Woody, M. (2026). Tackling the Chicken-and-Egg Problem: A Clean Hydrogen Ecosystem Planning and Pre-Optimization Framework. *International Journal of Hydrogen Energy* 244, 155553.

35. Cao*, X., Sexton, J.O., Wang, P., **Gounaridis, D.,** Carter, N.H. and Zhu, K. (2026). Validating remotely sensed biomass estimates with forest inventory data in the western US. *Science of Remote Sensing* 13, 100441.

34. Hawes*, J.K. **Gounaridis, D**., Newell, J.P., Goldstein, B.P., Caputo, S., Nevin Cohen, N., Fargue-Lelièvre, A., Poniży, L., and Specht, K. (2026). Assessing the potential to scale up urban agriculture in the Global North. *Landscape and Urban Planning* 272, 105657.

33. Sosa-Moreno, A., Lee, G.O., Kann, R.S., Coloma, J., Trueba, G., Cevallos, W., Wu, Z., **Gounaridis, D**., Levy, K. and Eisenberg, J.N.S. (2026). Extreme Rainfall Modifies the Association between Piped Water Intermittency and Water Quality in Low-Resource Settings. *ACS ES&T Water* 6(4), 2080−2089.

32. Finn, B.M., Cobbinah, P.B. and **Gounaridis, D.** (2025). The Informal Paradox: Electronic waste and the toxic circular economy in Ghana. *npj Urban Sustainability* 5, 101.

31. Goldstein, B.P., Pelton, R.E.O., **Gounaridis, D**., Schmitt, J., Springer, N. and Newell, J.P. (2025). The carbon hoofprint of cities is shaped by geography and production in the livestock supply chain. *Nature Climate Change* 15, 1190–1197.

30. Chamanara*, S., **Gounaridis, D**., Goldstein, B. and Newell, J.P. (2025). Geography of animal feeding operations and their contribution to fine particulate matter pollution in vulnerable communities in the United States. *Communications Earth & Environment* 6, 620.

29. **Gounaridis, D.,** Waweru*, W. and Newell, J.P. (2024). Triple Exposure: The Geographic Correlation between Flooding Risk, Climate Skepticism, and Social Vulnerability in the United States. *Environmental Research Letters* 19, 114084.

28. Goldstein, B., **Gounaridis, D.** Newell, J., Pelton, R.E.O., and Schmitt, J. (2024). Do We Accurately Measure What We Consume? *Environmental Research Letters* 19, 084006.

27. **Gounaridis, D**., and Newell, J.P. (2024). The social anatomy of climate change denial in the United States. *Scientific Reports* 14, 2097.

26. Limerick*, S., Hawes*, J., **Gounaridis,** Cohen, N. and Newell, J.P. (2023). Community gardens and the 15-minute city: Scenario analysis of garden access in New York City. *Urban Forestry & Urban Greening* 89, 128107.

25. VanderWilde*, C., Newell, J.P., **Gounaridis, D**. and Goldstein, B. (2023). Deforestation, certification, and transnational palm oil supply chains: Linking Guatemala to global consumer markets. *Journal of Environmental Management* 344, 118505.

24. Hawes*, J.K., **Gounaridis, D**. and Newell, J.P. (2022). Does urban agriculture lead to gentrification? *Landscape and Urban Planning* 225*,* 104447.

23. Cho*, K., Goldstein, B., **Gounaridis, D.** and Newell, J.P. (2022). Hidden risks of deforestation in global supply chains: A study of natural rubber flows from Sri Lanka to the United States. *Journal of Cleaner Production* 349, 131275.

22. Yang*, J., **Gounaridis, D.,** Liu, M., Bi, J. and Newell, J. (2021). Perceptions of Climate Change in China. *Earth's Future* 9(12), e2021EF002144.

21. Goodspeed, R., Liu, R., **Gounaridis, D.,** Lizundia, C. and Newell, J. (2021). A Regional Spatial Planning Model for Multifunctional Green Infrastructure. *Environment and Planning B: Urban Analytics and City Science* 49(3).

20. Cho*, K., Goldstein, B., **Gounaridis, D.** and Newell, J.P. (2021). Where does your guacamole come from? Detecting deforestation associated with the export of avocados from Mexico to the United States. *Journal of Environmental Management* 278, 111482.

19. **Gounaridis, D**., Newell, J.P. and Goodspeed, R. (2020). The Impact of Urban Sprawl on Forest Landscapes in Southeast Michigan, 1985-2015. *Landscape Ecology* 35, 1975–1993.

18. Goldstein, B., **Gounaridis, D.** and Newell, J.P. (2020). The Carbon Footprint of Household Energy Use in the United States. *Proceedings of the National Academy of Sciences* 117(32), 19122-19130.

17. Zaimes, N.G., **Gounaridis, D.** and Symeonakis, E. (2019). Assessing the impact of dams on riparian and deltaic vegetation using remotely sensed vegetation indices and Random Forests modelling. *Ecological Indicators* 103, 630-641.

16. **Gounaridis, D**., Chorianopoulos, I., Symeonakis, E. and Koukoulas, S. (2019). A Random Forest-Cellular Automata modelling approach to explore future land use/cover change in Attica (Greece), under different socio-economic realities and scales. *Science of the Total Environment* 646, 320–335.

15. **Gounaridis, D**., Symeonakis, E., Chorianopoulos, I. and Koukoulas, S. (2018). Incorporating density in spatio-temporal land use/cover change patterns: the case of Attica, Greece. *Remote Sensing* 10(7), 1034.

14. Kizos, T., Verburg, P.H., Burgi, M., **Gounaridis, D**., Plieninger, T., Bieling, C. and Balatsos, T. (2018). From concepts to practice: A portfolio of approaches on drivers of landscape change. *Ecology and Society* 23(1), 25-35.

13. **Gounaridis, D**., Chorianopoulos, I. and Koukoulas, S. (2018). Exploring prospective urban growth trends under different economic outlooks and land-use planning scenarios: The case of Athens. *Applied Geography* 90, 134-144.

12. Garcia-Martin, M., Fagerholm, N., Bieling, C., **Gounaridis, D**., Kizos, T., Printsmann, A., Müller, M., Lieskovský, J. and Plieninger, T. (2017). Participatory mapping of landscape values in a Pan-European perspective. *Landscape Ecology* 32(11), 2133–2150.

11. Dimitrakopoulos, P.G., Koukoulas, S., Galanidis, A., Delipetrou, P., **Gounaridis, D**., Touloumi, K. and Arianoutsou, M. (2017). Factors shaping alien plant species richness spatial patterns across Natura 2000 Special Areas of Conservation of Greece. *Science of the Total Environment* 601–602*,* 461–468.

10. Zagaria, C., Schulp, C.J.E., Kizos, T., **Gounaridis, D**. and Verburg, P.H. (2017). Cultural landscapes and behavioral transformations: An agent-based model for the simulation and discussion of alternative landscape futures in East Lesvos, Greece. *Land Use Policy* 65, 26–44.

9. **Gounaridis, D**. and Koukoulas, S. (2016). Urban land cover thematic disaggregation, employing datasets from multiple sources and RandomForests modeling. *International Journal of Applied Earth Observation and Geoinformation* 51, 1–10.

8. **Gounaridis, D**., Apostolou, A. and Koukoulas, S. (2016). Land Cover mapping of Greece: a semi-automated classification approach based on Landsat data and Random Forests. *Journal of Maps* 12(5), 1055-1062.

7. **Gounaridis, D**., Apostolou, A., Riga* M., Moustos* P., Mpika* K., Kontou* D. and Koukoulas, S. (2016). Change detection of forests and semi-natural areas in Greece for the period 1990-2010. *Aegean Journal of Environmental Sciences* 2**,** 1-10.

6. **Gounaridis, D**., Zaimes, N.G. and Koukoulas, S. (2014). Quantifying spatio-temporal patterns of forest fragmentation in Hymettus Mountain, Greece. *Computers Environment and Urban Systems* 46, 35–44.

5. Iakovoglou, V., Zaimes, N.G. and **Gounaridis, D.** (2013). Riparian Areas in Urban Settings: Two Case Studies from Greece. *International Journal of Innovation and Sustainable Development* 7(3), 271 – 288.

4. **Gounaridis, D.** and Zaimes, N.G. (2012). GIS-based Multicriteria Decision Analysis applied for Environmental Issues. The Greek Experience. *International Journal of Applied Environmental Sciences* 7(3), 307 – 321.

3. Zaimes, N.G., **Gounaridis, D**., Iakovoglou, V. and. Emmanouloudis, D. (2011). Riparian Area Studies in Greece: A Literature Review. *Fresenius Environmental Bulletin* 20 (6a), 1470 – 1477.

2. Zaimes, N.G., **Gounaridis, D**. and Fotakis, D. (2011). Assessing riparian land-uses/vegetation cover along the Nestos River in Greece. *Fresenius Environmental Bulletin* 20 (12), 3217 – 3225.

1. Zaimes, N.G., Iakovoglou, V., Emmanouloudis, D. and **Gounaridis, D.** (2010). Riparian Areas of Greece: Their Definition and Characteristics. *Journal of Engineering Science and Technology Review* 3 (1), 176-183.

Manuscripts under review / in revision

1. Kruger*, S.E., **Gounaridis, D**., Juárez, J.G., Berrocal, V.J., Laguna, H.S., Mojica, J., Harris, E., Morrison, A., Coloma, J. and Eisenberg, J.N.S. (2026). Landscape predictors of *Aedes aegypti* abundance in a dengue-endemic locality in Managua, Nicaragua (Submitted).
2. Qiang*, X., Gillespie, L.E., Xi, J., **Gounaridis, D**. and Zhu, K. (2026). Mapping distribution of invasive plant species and uncertainty using citizen science, remote sensing, and deep learning (Submitted).
3. Ta, J., Larson, P.S., Newell, J., **Gounaridis, D.,** O'Neill, M.S., Papaefthymiou, K., Melendez, R. and Gronlund, C.J. (2026). Incorporating heat-associated health outcomes into heat vulnerability

indices: Evidence from emergency department and urgent care visits among older adults in Michigan (Submitted).

Book Chapters

1. Nitis, T., Tsegas, G., Moussiopoulos, N., **Gounaridis, D.** (2018) Assimilating Anthropogenic Heat Flux Estimated from Satellite Data in a Mesoscale Flow Model. In: Mensink C., Kallos G. (eds) Air Pollution Modeling and its Application XXV. ITM 2016. Springer Proceedings in Complexity. Springer.

Articles in Conference Proceedings

5. Finn, B.M., Cobbinah, P.B. and **Gounaridis, D.** End-of-life informality: assessing the negative externalities of the decarbonization circular economy in Accra. New Frontiers of Urban Informality at University of Sheffield. September 12-13, 2024. Sheffield, UK.

4. Finn, B.M., Cobbinah, P.B. and **Gounaridis, D.** The Geographies of Informality: Assessing the Negative Externalities of 'End-of-Life' Circular Economies. IAD Spring Symposium: Imagining Just Environmental and Climate Futures in Africa. May 3, 2024. Cornell University, Ithaka, NY, USA.

3. Nitis, T., Tsegas, G., Moussiopoulos, N., **Gounaridis, D.** and Bliziotis, D. Satellite data-based approach for the estimation of anthropogenic heat flux over urban areas. Proceedings SPIE, 104441P. RSCy2017.

2. Zaimes, N.G., **Gounaridis, D.,** Iakovoglou, V. and Emmanouloudis, D. Assessing soil erosion risk for Rhodes Island, Greece with a GIS-based Multi-Criteria Decision Analysis. Proceedings: The *4th* IASTED African Conference on Water Resource Management – Africa WRM. September 3-5, 2012. Gaborone, Botswana.

1. Iakovoglou, V., Zaimes, N.G. and **Gounaridis, D.** Managing healthy riparian areas in urban settings of Greece to improve living conditions. Proceedings: Protection and Restoration of the Environment XI. July 3-6, 2012. Thessaloniki, Greece.

Abstracts in Conference Proceedings

24. Sachs*, C., **Gounaridis, D**., Dhillon, P., Newell, J. SAGE: A Scalable GeoAI Framework for Automated Mapping of Lithium Mines. American Geophysical Union (AGU). 15-19 December 2025, New Orleans, LA, USA.

23. Sachs*, C., **Gounaridis, D**., Dhillon, P., Newell, J. SAGE: A Scalable GeoAI Framework for Automated Mapping of Lithium Mines. U-M Annual Data Science & AI Summit. November 17-18, 2025, Ann Arbor, MI, USA.

22. Sedlock*, C., **Gounaridis, D**., Goldstein, B., Newell, J. A machine learning method for estimating global forest dependency. 11th Forests & Livelihoods: Assessment, Research, and Engagement (FLARE) Annual Meeting. October 23-27, 2025, Lima, Peru.

21. Checkoway*, S., **Gounaridis, D**., Keoleian, G. Fuzzy Cognitive Mapping and Principles for Green Hydrogen Ecosystem Development in Michigan. International Symposium on Sustainable Systems and Technology (ISSST). June 16 - 18, 2025, Minneapolis, MN, USA.

20. Goldstein, B., Pelton, R.E.O., **Gounaridis, D.,** Schmitt, J. Springer, N., Newell, J. The Carbon Hoofprint of Cities. American Association of Geographers annual meeting, 24-28 March 2025, Detroit, MI, USA.

19. Kruger*, S., **Gounaridis, D.,** Juarez, J.G., Suazo, H., Mojica, J., Harris, E., Coloma, J., Eisenberg, J.N.S. Landscape predictors of Aedes aegypti abundance in a dengue-endemic locality in

Managua, Nicaragua. American Society of Tropical Medicine & Hygiene (ASTMH), 13 - 17 November 2024, New Orleans, LA, USA.

18. Hawes*, J., **Gounaridis, D.,** Goldstein, B. and Newell, J. Understanding sustainability, resilience, and justice synergies and trade-offs across urban agriculture futures. American Association of Geographers annual meeting, 16-20 April 2024, Honolulu, HI, USA.

17. Hawes*, J., **Gounaridis, D.** and Newell, J. Evaluating sustainability, resilience, and justice tradeoffs across urban agriculture futures. American Geophysical Union (AGU). 11-15 December 2023, San Francisco, CA.

16. Goldstein, B. and Newell, J. and **Gounaridis, D**. Carbon Footprint of Household Energy Use in the United States. 11th International Conference on Industrial Ecology (ISIE2023), 02 - 05 July 2023, Leiden, Netherlands.

15. **Gounaridis, D**., Yang*, J., Liu, M. and Newell, J. Deep Learning and geo-tagged tweets to understand the social anatomy of climate change denialism in the United States. American Association of Geographers annual meeting, 23-27 March 2023, Denver, CO, USA.

14. Limerick*, S., Hawes*, J., **Gounaridis, D.** and Newell, J. Can NYC become a 15-minute garden city? American Association of Geographers annual meeting, 23-27 March 2023, Denver, CO, USA.

13. Hawes*, J., Limerick*, S., **Gounaridis, D.,** Goldstein, B. and Newell, J. The spatial metabolism of urban agriculture. American Association of Geographers annual meeting, 23-27 March 2023, Denver, CO, USA.

12. Hawes*, J., **Gounaridis, D.,** Newell, J., Goldstein, B. and Limerick*, S. Spatial metabolism modeling of sustainability, resilience, and justice tradeoffs: The case of urban agriculture. American Geophysical Union (AGU). 12 – 16 December 2022. Chicago, IL, USA.

11. Hawes*, J., **Gounaridis, D.,** Limerick*, S. and Newell, J. Identifying urban gardens using satellite imagery and Google Street View in Detroit and NYC. 4S/ESOCITE. 7-10 December 2022. Cholula, Mexico.

10. **Gounaridis, D**. and Newell, J. Using Geospatial Data Science to Identify Vulnerable Communities to Climate Change. American Association of Geographers annual meeting, 25 February - 1 March 2022. New York City, NY, USA.

9. Hawes*, J., **Gounaridis, D.,** Goldstein, B. and Newell, J. Understanding the multi-dimensional effects of urban agriculture at the city-scale: A study of the US and Europe. American Association of Geographers annual meeting, 25 February - 1 March 2022. New York City, NY, USA.

8. **Gounaridis, D**. and Newell, J. How thirty years of sprawl in southeast Michigan has affected farmland and forests. American Association of Geographers annual meeting, 7 - 11 April 2021. Seattle, WA, USA.

7. Goldstein, B., Newell, J., Cho*, K. and **Gounaridis, D.** Rubber & Risk: Deforestation related to the export of natural rubber from Sri Lanka. American Association of Geographers annual meeting, 7 - 11 April 2021. Seattle, WA, USA.

6. Cho*, K., Goldstein, B., **Gounaridis, D.** and Newell, J. Deforestation associated with supply chains exporting avocados from Mexico to the United States. American Association of Geographers annual meeting, 7 - 11 April 2021. Seattle, WA, USA.

5. **Gounaridis, D**. and Newell, J. Exploring Prospective Pathways to Scale Up Urban Agriculture: The Case of Detroit. American Association of Geographers annual meeting, 3 - 7 April 2019. Washington DC, USA.

4. Nitis, T., Tsegas, G., Moussiopoulos, N., **Gounaridis, D.** and Bliziotis, D. Satellite data based approach for the estimation of anthropogenic heat flux over urban areas. 5th International Conference on Remote Sensing and Geoinformation of Environment, 20 - 23 March 2017. Paphos, Cyprus.

3. **Gounaridis, D**., Apostolou, A., Riga*, M., Moustos*, P. and Koukoulas, S. Detecting changes in forest cover of Greece (1990-2010) using Landsat imagery and semi-automatically trained Random Forests models. 7th National Congress of Ecology, 9 - 12 October 2014. Mytilene, Greece.

2. Kalabokidis, K., Palaiologou, P. and **Gounaridis, D**. Analysis of post fire natural regeneration of a Mediterranean forest in the mountainous environment of Lesvos island. 6th National Congress of Ecology, 4 - 7 October 2012. Athens, Greece.

1. Zaimes, N.G., Mallinis, G., **Gounaridis, D**., Emmanouloudis, D., Iakovoglou, V. and Mitsopoulos, I. Mitigating land degradation in a Natura 2000 site by targeting reforestation areas with the use of Remote Sensing, GIS and Multi-Criteria Analysis. IUFRO Conference on Restoring Forests: Advances in Techniques and Theory, 27 - 29 September 2011. Madrid, Spain.

TEACHING

School for Environment and Sustainability, University of Michigan

2024 - EAS 541/Environ 441, Remote Sensing of Environment [4 credits]

Department of Geography, University of the Aegean

2016 Lifelong Learning, Introduction to Geographic Information Systems (10 modules)

2014 Undergraduate level: Applications of Geographic Information Systems [2 credits]

2014 Graduate level: Special issues in Geographic Information Systems [2 credits]

2014 Graduate level: Applications of Remote Sensing [2 credits]

Invited lectures

2026 Geospatial data science for ecology. Fulbright-sponsored course, Federal University of Pará (UFPA), Belém, Brazil.

2025 The Informal Paradox: Electronic waste and the toxic circular economy in Ghana. Accra Metropolitan Assembly (AMA), Accra, Ghana.

2025 Geospatial data science for social and environmental hazards. Natural and Environmental Hazards: Uncertainties, Risks, and Forecasts (EARTH 230), LSA Earth & Environmental Sciences, University of Michigan, Ann Arbor, USA.

2025 Geospatial Data Science in Data-Scarce Regions: Challenges and Innovations. Climate Change and Population Dynamics Research (C2PDR) group, Department of Sociology, School of Social Sciences, Shahjalal University of Science and Technology, Sylhet, Bangladesh.

2025 Geospatial data science for sustainability. Advancing Sustainable Systems through low-impact Energy Technologies (ASSET) Lab, School for Environment and Sustainability, University of Michigan, Ann Arbor, USA.

2024 Tracing the environmental and social implications of America's meat supply chain. Urban Sustainability (EAS 537), School for Environment and Sustainability, University of Michigan, Ann Arbor, USA.

2024 Geospatial data science for ecology. Institute for Global Change Biology, University of Michigan Ann Arbor, USA.

2024 Detecting Climate Change Denialism: Leveraging AI and Big Data from Social Media. U-M/Peking University (PKU) Institute on Innovative and Effective Teaching. Session: "Using GenAI for Research".

2023 Geospatial data science for urban sustainability. Introduction to GIS in the Earth Sciences (EARTH 408), Department of Earth and Environmental Sciences, University of Michigan, Ann Arbor, USA.

2023 The Carbon Footprint of Household Energy Use in the United States. Urban Sustainability (EAS 537), School for Environment and Sustainability, University of Michigan, Ann Arbor, USA.

2022 Geospatial data science for urban sustainability. Environmental Data Science Bootcamp, Michigan Institute for Data Science, University of Michigan, Ann Arbor, USA.

2022 The Carbon Footprint of Household Energy Use in the United States. Urban Sustainability (EAS 537), School for Environment and Sustainability, University of Michigan, Ann Arbor, USA.

2021 The impact of urban sprawl on forest landscapes in Southeast Michigan, 1985-2015. Workshop: Climate Change Adaptation in the Detroit Region's Urban Forest. Organized by the Northern Institute of Applied Climate Science, USDA Northern Forests Climate Hub US Forest Service, American Forests, The Greening of Detroit, City of Detroit, Southeast Michigan Council of Governments, and the Michigan Department of Natural Resources.

2021 The Impact of Urban Sprawl on Forests in Southeast Michigan, 1985-2015. Urban Sustainability (EAS 537), School for Environment and Sustainability, University of Michigan, Ann Arbor, USA.

2020 The Impact of Urban Sprawl on Forests in Southeast Michigan, 1985-2015. Urban Sustainability (EAS 537), School for Environment and Sustainability, University of Michigan, Ann Arbor, USA.

2019 Land cover change detection and spatial pattern analysis for south-east Michigan. Urban Scenarios Lab Seminars (URP 522), Taubman College of Architecture and Urban Planning, University of Michigan, Ann Arbor, USA.

2019 Land cover change detection and spatial pattern analysis for south-east Michigan. Southeast Michigan Council of Governments (SEMCOG). Detroit, USA.

2018 Ideas on how to detect urban agriculture with remote sensing techniques. Spatial Computing Research Group, Department of Computer Science & Engineering, University of Minnesota, USA.

2018 Exploring prospective urban growth trends under different economic outlooks and land use planning scenarios: The case of Athens. Undergraduate level class - Geographic Information Systems (GIS) applications, Department of Geography, University of the Aegean, Mytilene, Greece.

2018 Land Cover mapping of Greece: a semi-automated classification approach based on Landsat data and Random Forests. Undergraduate level class – Introduction to Remote Sensing, Department of Geography, University of the Aegean, Mytilene, Greece.

2016 Land Cover mapping of Greece: a semi-automated classification approach based on Landsat data and Random Forests. Undergraduate level class – Introduction to Remote Sensing, Department of Geography, University of the Aegean, Mytilene, Greece.

STUDENT MENTORING AND ADVISING

* Advisory committee

Doctoral

2026 *Charlotte Sedlock: Winners and Losers in the "Race to Trace" Deforestation-Free Supply Chains. School for Environment and Sustainability. University of Michigan.

2026 *Chandler Sachs: Using novel methodologies to detect, link, and analyse critical mineral supply chains. School for Environment and Sustainability. University of Michigan.

2024 Jason Hawes: Urban agriculture: Good for people, places, planet? School for Environment and Sustainability. University of Michigan.

2023 Cali VanderWilde: Deforestation, Certification, and Transnational Supply Chains: A Study of the Palm Oil Sector. School for Environment and Sustainability. University of Michigan.

2022 Sanaz Chamanara: Environmental Justice and Governance Dynamics of Supply Chains in the Livestock Sector. School for Environment and Sustainability. University of Michigan.

Master's Thesis

2026 *Xu Qiang: Mapping Distribution of Invasive Plant Species in Michigan Using Citizen Science Data, Remote Sensing, and Deep Learning. School for Environment and Sustainability. University of Michigan.

2025 *Xiuyu Cao: Validating remotely sensed biomass with forest inventory data in the western US. School for Environment and Sustainability. University of Michigan.

2023 Samuel Limerick: Can New York City become a 15-minute garden city? School for Environment and Sustainability. University of Michigan.

2022 Wanja Waweru: Investigating Social Vulnerability in Flood Prone Areas. School for Environment and Sustainability. University of Michigan.

2020 Kimin Cho: Environmental impacts of the U.S.-Mexico avocado supply chain. School for Environment and Sustainability. University of Michigan.

MEDIA COVERAGE

2025 The Informal Paradox: Electronic waste and the toxic circular economy in Ghana
Michigan News; Terra Daily; Nature Africa; The Conversation;

2025 The carbon hoofprint of cities is shaped by geography and production in the livestock supply chain
Michigan News; earth.com; The Washington Post; ABC News; Bloomberg; The Cool Down
(selected – full list here)

2025 Geography of animal feeding operations and their contribution to fine particulate matter pollution in vulnerable communities in the United States
Michigan News; The Hill; Los Angeles Times; Grist; The Cool Down; Inside Climate News
(selected – full list here)

2024 Triple exposure: the geographic correlation between flood risk, climate skepticism, and social vulnerability in the United States
Michigan News; UN Office for Disaster Risk Reduction (UNDRR); The Michigan Daily

2024 The social anatomy of climate change denial in the United States
The Guardian; Newsweek; U.S. News; Scientific American; Michigan News; IFLScience
(selected – full list here)

2023 Deforestation, certification, and transnational palm oil supply chains: Linking Guatemala to global consumer markets
Michigan News; NASA; Mirage News; Mongabay; South Africa Today

2022 Does urban agriculture lead to gentrification?
Michigan News; wdet; Nature Plants; Planetizen; Patch; Phys.org; Croakey Health Media

2021 Where does your guacamole come from? Detecting deforestation associated with the export of avocados from Mexico to the United States
Vox

2020 The Carbon Footprint of Household Energy Use in the United States
CNN; Reuters; The Washington Post; Scientific American; New York Post; The Guardian;
(selected – full list here)

2020 The impact of urban sprawl on forest landscapes in Southeast Michigan, 1985–2015
Michigan Radio; Michigan News; National Science Foundation; Science Daily; Detroit News

REFEREE SERVICE

Journals:
Applied Geography; Communications Earth and Environment; Communications Earth & Environment; Computers, Environment and Urban Systems; Ecological Economics; Ecological Indicators; Ecological Informatics; Environmental Monitoring and Assessment; Environment and Planning B; Environmental Science & Technology; Geocarto International; Global Environmental Change; Habitat International; ISPRS International Journal of Geo-Information; International Journal of Applied Earth Observation and Geoinformation; Journal of Cleaner Production; Land; Landscape and Urban Planning; Nature

Cities; Nature Communications; Nature Sustainability; PLOS Climate; PLOS One; Remote Sensing; Science of the Total Environment; Scientific Data; Scientific Reports; Sensors; Sustainable Cities and Society; Transactions in GIS; Urban Geography; World Development Sustainability

Grant proposals:

- US National Science Foundation (NSF). Proposal submitted to the Geography and Spatial Sciences (GSS) Program.
- Michigan Institute for Data Science - Propelling Original Data Science