JASON R PARENT

Assistant Professor

Department of Natural Resources Science, University of Rhode Island
1 Greenhouse Road, South Kingston, RI 02881

Phone: 401-874-5582, Email: jason_parent@uri.edu

| EDUCATION | |
|--|----------------|
| Ph.D. in GIS and Remote Sensing, University of Connecticut Dissertation title: Using Leaf-off LiDAR in Modeling Forest Canopy Structure and Assessing the Effect of Spatial Resolution in Landscape Analyses | 2014 ture |
| M.S. in Earth Resources Information Systems, University of Connecticut Thesis title: Predicting Forest Fragmentation in the Salmon River Waters of Connecticut | 2006 hed |
| B.S. in Environmental Science and Biology, University of Connecticut Thesis title: The effect of European Starlings on the Germination of Flesh Fruited Invasive Plants. | 2002 y- |
| PROFESSIONAL APPOINTMENTS | |
| Assistant professor , Department of Natural Resources Science, University of Rhode Island | 2019 - present |
| Assistant research professor , Department of Natural Resources and the Environment, University of Connecticut | 2016 - 2019 |
| Research team coordinator, Eversource Energy Center, University of Connecticut | 2017 - present |
| Consultant (guest lecturer), VDOT workshop, Virginia Tech | 2016 - 2017 |
| GIS consultant, SIAS Global LLC, New Haven, CT | 2016 - 2017 |
| GIS consultant, New York University, New York, NY | 2013 - 2016 |
| Postdoctoral research associate , Department of Natural Resources and the Environment, University of Connecticut | 2014 - 2016 |
| Graduate research assistant , Department of Natural Resources and the Environment, University of Connecticut | 2009 - 2014 |
| GIS consultant, Lincoln Institute of Land Policy, Cambridge, MA | 2009 - 2012 |
| Academic assistant / GIS Specialist, Center for Land use Education and Research, Department of Natural Resources and the Environment, University of Connecticut | 2006 - 2009 |

RESEARCH GRANTS AND CONTRACTS

Funded:

- "North Woods Species Mapping using Time Series of Drone Imagery". 2024. PI. \$5000. University of Rhode Island Office of the Provost.
- "Odor misinformation tactics as a predator management strategy for Atlantic coast beach-nesting birds". 2023-2025. \$72,830. RI DEM.
- "StateView Program Development and Operations for the State of Rhode Island (2023-2024)". 2024-2025. Co-PI. \$25,500. USGS AmericaView.
- "Assessing Salt Marsh Migration Areas for Northeast and Mid-Atlantic Coastal National Parks". 2024-2027. PI. \$300,000. National Park Service.
- "Long Island Sound Eelgrass Aerial Mapping and Intercomparison Study". 2024-2026. PI. \$205,000. US Fish & Wildlife Service.
- Collaborative Research: RII Track-2 FEC: Equitable Nature-Based Climate Solutions (ENACTS). 2024-2028. Co-PI. \$6,000,000 (\$1,400,000 for URI). NSF.
- "Rhode Island Vernal Pool Mapping". 2024. PI. \$54,964. RI DEM.
- "Estimation of Deer abundance in Rhode Island". 2023-2024. PI. \$165,209. RI DEM.
- "GIS Support Services for the Naval Undersea Warfare (NUWCDIVNPT) Center's Marine Environmental Planning Laboratory (MEP)". 2023-2024. PI. \$33,564. McLaughlin Research Corp/NUWC.
- "3D Mapping of the Leaf-Off North Woods using UAS and Ground-Based Remote Sensing". 2023. PI. \$5000. University of Rhode Island Office of the Provost.
- "Geospatial Data Collection, Management, Analysis, and Visualization in Support of Succotash Salt Marsh Restoration". 2023-2024. PI with Bradley and LaBash. \$115,731. RI Department of Environmental Management.
- "Beach Profiling Monitoring Project". 2023-2024. Co-PI with Wang (PI), Bradley, and LaBash. \$12,355. RI Coastal Resources Management Council.
- "3D Mapping of the North Woods using UAS Remote Sensing". 2022. PI. \$5000. University of Rhode Island Office of the Provost.

- "GIS Support Services for the Naval Undersea Warfare (NUWCDIVNPT) Center's Marine Environmental Planning Laboratory (MEP) FY22". PI with Damon and LaBash. \$6,199. McLaughlin Research Corp/NUWC. 2022.
- "Examining the Opioid Epidemic through First-Responders". Unfunded collaborator with Dahianna Lopez (PI). \$40,000. Center of Biomedical Research Excellence. 2021-2022.
- "StateView Program Development and Operations for the State of Rhode Island". Co-PI with Wang (PI). \$23,500. AmericaView. 2022-2023.
- "Rhode Island Submerged Aquatic Vegetation (SAV) Mapping". PI with Bradley and LaBash. \$44,699. 2021-2022. RI Coastal Resources Management Council.
- "GIS Support Services for the Naval Undersea Warfare (NUWCDIVNPT) Center's Marine Environmental Planning Laboratory (MEP) FY22". PI with Damon and LaBash. \$45,329. McLaughlin Research Corp/NUWC. 2021-2022.
- "StateView Program Development and Operations for the State of Rhode Island". Co-PI with Wang (PI). \$23,500. AmericaView. 2021-2022
- "Maintain and Curate the North Atlantic Right Whale Sightings Database". Co-PI with R. Kenney (PI) and C. LaBash (co-PI). \$542,100. NOAA. 2020-2025.
- "Building the Foundation for AmericaView's ArcGIS Online Organization". Co-PI with Wang (PI). \$7,500. AmericaView. 2020.
- "StateView Program Development and Operations for the State of Rhode Island". Co-PI with Wang (PI). \$23,500. AmericaView. 2020-2021.
- "Using Remote Sensing and Geospatial Analysis to Improve Forest Monitoring and Facilitate Management of Storm-Resilient Forests. PI. \$332,340. USDA McIntire-Stennis. 2020-2024
- "Creating a Catalog of Point Clouds for Public Buildings in Enfield and Storrs, Connecticut", PI. \$38,118 (transferred to URI). 2020. National Institute of Standards and Technology.
- "Understanding Spatial Distribution and Variability of Tidal Marsh Soils Across the Atlantic Coastal Zone for Soil Mapping and Carbon Accounting", co-PI with Mark Stolt (PI). \$499,989. USDA-NRCS. 2020–2022.
- "GIS Support Services for the Naval Undersea Warfare (NUWCDIVNPT) Center's Marine Environmental Planning Laboratory (MEP) FY20", PI with Damon and LaBash. \$42,219. NUWC (Newport). 2020-2021.
- "Promoting Water Conservation with Remote Sensing and Hydrological Modeling", PI with Chandi Witharana, Xinyi Shen, Thymios Nikolopoulos, Giulia Sofia. \$150,000. 2019-2020. Eversource Center for Resilient Energy.

- "Creating a Catalog of Point Clouds for Public Buildings in Enfield and Storrs, Connecticut", PI with Chandi Witharana and Thomas Meyer. \$183,318. 2018-2019. National Institute of Standards and Technology.
- "Detection of UAV threats to Critical Infrastructure Phase II", PI with Chandi Witharana, Emmanouil N. Anagnostou, and Thomas Meyer. \$211,180. 2019. Eversource Center for Resilient Energy
- "Eversource Center for Resilient Energy: Detection of UAV threats to Critical Infrastructure" PI with Chandi Witharana. \$150,000, 2018. Eversource Center for Resilient Energy.
- "Eversource Center for Resilient Energy: Stormwise: Vegetation Management and Modeling for Storm Resistant Trees, Resilient Power and Sustainable Futures," Co-PI with Anita Morzillo (PI), John Volin, Thomas Worthley, Chandi Witharana, Robert Fahey. \$1,003,000, 2018-2019. Eversource Center for Resilient Energy.
- "Eversource Center for Resilient Energy: Continued Evaluation of LiDAR and Alternative Technologies for Monitoring Roadside Vegetation and Utility Infrastructure" PI with Chandi Witharana, and Wei Zhang. \$240,000, 2018-2019. Eversource Center for Resilient Energy.
- "Eversource Center for Resilient Energy: Further Evaluation of LiDAR and Alternative Technologies for Monitoring Roadside Vegetation and Utility Infrastructure" PI with John Volin, Thomas Meyer, Wei Zhang, Robert Fahey. \$150,000. 2017. Eversource Center for Resilient Energy.
- "Eversource Center for Resilient Energy: Evaluation of Airborne and Mobile LiDAR
 Technologies for Monitoring Roadside Vegetation and Utility Infrastructure" PI with John
 Volin, Emmanouil N. Anagnostou, and David W. Wanik. \$338,062, 2016-2017.
 Eversource Center for Resilient Energy.
- "Eversource Center for Resilient Energy: Stormwise: Vegetation Management and Modeling for Storm Resistant Trees, Resilient Power and Sustainable Futures," Co-PI with John Volin (PI), Thomas Worthley, Anita Morzillo, and Christine Kirchhoff. \$1,213,521, 2015-2017. Eversource Center for Resilient Energy.
- "Monitoring Global Urban Expansion: Phase I," Contract. \$8500. 2014-2015. New York University.
- "Monitoring Global Urban Expansion: Phase II," Contract. \$6000. 2014-2015. New York University.
- "Forest susceptibility of non-native woody plant invasion under different forest management practices," Co-PI with John Volin (PI), D. Civco, T. Worthley, \$70,360, October 2011 September 2016, USDA McIntire-Stennis Program.

"Modeling Potential Effects of Aeolian Deposition on Tree Island Distribution in the Florida Everglades Landscape," Co-PI with John Volin (PI). \$8000, 2009-2010, Center for Environmental Sciences and Engineering Multidisciplinary Environmental Research Award.

AWARDS AND RECOGNITIONS

William T. Pecora Award (2023) (awarded to AmericaView), The Department of the Interior and the National Aeronautics and Space Administration.

Recognition of Teaching Excellence (2018), University of Connecticut – Provost.

Recognition of Teaching Excellence (2016), University of Connecticut – Provost.

Post-doc Data Blitz Presentation, 3rd place (2015), University of Connecticut – Graduate School.

Recognition of Teaching Excellence (2014), University of Connecticut – Provost.

Best Presentation Award (2012), College of Agriculture and Natural Resources Graduate Student Forum.

Outstanding Graduate Student (2012), University of Connecticut – Department of Natural Resources and the Environment.

Best Presentation Award (2011), College of Agriculture and Natural Resources Graduate Student Forum.

Predoctoral Fellow (2010-2011), University of Connecticut – Department of Natural Resources and the Environment.

Ta Liang Award (2010), American Society for Photogrammetry and Remote Sensing.

CESE Multidisciplinary Environmental Research Award (2009-2010). University of Connecticut – Center for Environmental Sciences and Engineering.

Outstanding Scholar Program Fellowship (2009). University of Connecticut – Graduate School.

Excellence in Outreach Award (awarded to the Geospatial Technology Program) (2009). University of Connecticut – College of Agriculture and Natural Resources.

ESRI Science Modeling Challenge (1st Place) (2007). Environmental Systems Research Institute.

Environmental Leadership Group Award (awarded to the Center for Land use Education And Research) (2005). University of Connecticut – Department of Environmental Policy.

New England Scholar (1999-2001). University of Connecticut.

Dean's list (1998-2002). University of Connecticut.

PUBLICATIONS

Peer-review journals articles (accepted):

- 1. Dong, L., Lang, C., & Parent, J. (2024). Focusing the View: Improved Methods for Assessing Viewshed Impacts of Onshore Wind Turbines. Journal of Environmental Economics and Management.
- 2. Wedagedara, H., Witharana, C., Fahey, R., Cerrai, D., **Parent, J.**, & Shehen Perera, A. (2024). Nonparametric Machine Learning Modeling of Tree-caused Power Outage Risk to Overhead Distribution Powerlines. Applied Sciences.
- 3. Worthley, T.; Bunce, A.; Morzillo, A.; Witharana, C.; Zhu, Z.; Cabral, J.; Crocker, E.; Cranmer, N.; DiFalco, S.; Hale, D.; Joshi, D.; Kloster, D.; Marek, N.; **Parent, J.**; Rogers, J.; Rudnicki, M.; Song, K.; Volin, J.; Ward, J.; Wedagedara, H.; Fahey, R. 2024. Stormwise: Innovative Forest Management to Promote Storm Resilience in Roadside Forest-Infrastructure Systems. Journal of Forestry.
- 4. **Parent, J.**, Gold, A., Vogler, E., & Lowder, K. 2024. Guiding Decisions on the Future of Dams: A GIS Database Characterizing Ecological and Social Considerations of Dam Decisions. *Journal of Environmental Management*. https://doi.org/10.1016/j.jenvman.2023.119683.
- 5. Lopez, D., **Parent, J.**, Stegnicki, T., Kenyon, Z., & Malloy, L. 2023. Overdosing in a Motor Vehicle: Examination of Human, Geographic and Environmental Factors. *Nursing Research*. (Accepted Nov. 2023)
- 6. Wedegedara H, C Witharana, R Fahey, D Cerrai, D Joshi, **J Parent**. 2023. Modelling the impact of local environmental variables on tree-related power outages along distribution powerlines. Electrical Power Systems Research 221. https://doi.org/10.1016/j.epsr.2023.109486.
- 7. Dumarevskaya, L and **J. Parent**. 2023. The Effect of Wire Insulation on Reducing Tree-Related Power Outages. Electrical Power Systems Research 221. https://doi.org/10.1016/j.epsr.2023.109454.
- 8. **Parent J** and Q. Lei-Parent. 2023. Rapid viewshed analyses: A case study with visibilities limited by trees and buildings. Applied Geography 154. https://doi.org/10.1016/j.apgeog.2023.102942
- 9. Nugraha, A, **J. Parent**. 2022. Enhancing Coastal Disaster Mitigation Measures: Vegetation Based Feasibility Study for Southern Java, Indonesia. International Journal of Remote Sensing and Earth Science 19(2): 143-152.
- 10. Parent, J., C. Witharana, M. Bradley. 2022. Mapping Building Interiors with Handheld LiDAR: Classifying and Georeferencing Point Clouds in ArcGIS. Photogrammetric Engineering and Remote Sensing 88 (6): 383-390. DOI: 10.14358/PERS.21-00048R2
- 11. E. Volin, A. Ellis, S. Hirabayashi, S. Maco, D. Nowak, **J. Parent**, R Fahey. 2020. Understanding macro-scale patterns in urban tree canopy and inequality. Urban Forestry and Urban Greening. https://doi.org/10.1016/j.ufug.2020.126818.

- 12. Parent, J., T. Meyer, J. Volin, B. Fahey, C. Witharana. 2019. An Analysis of Enhanced Tree Trimming Effectiveness using a Geospatial Approach. Journal of Environmental Management 241 (1): 397-406. https://doi.org/10.1016/j.jenvman.2019.04.027.
- 13. Bunce, A., J. Volin, D. Miller, **J. Parent**, M. Rudnicki. 2018. Determinants of Tree Sway Frequency in Temperate Deciduous Forests of the Northeast United States. Agricultural and Forest Meteorology 266-267 (15): 87-96.
- 14. W. Zhang, C. Witharana, W. Li, C. Zhang, X. Li, **J. Parent**. 2018. Using deep learning to identify geographic objects and estimate their locations from Google Street View images: A case study of utility poles with crossarms. Sensors 18, 2484; doi:10.3390/s18082484.
- 15. **Parent, J.** and Q. Lei. 2018. Estimating Percent Impervious Cover from Landsat-based Land Cover with a Simple and Transferable Regression Model. International Journal of Remote Sensing. DOI: 10.1080/01431161.2018.1447166.
- 16. Wanik, D., **J. Parent**, E. Anagnostou, B. Hartman. 2017. Using Vegetation Management and LiDAR-Derived Tree Height Data to Improve Outage Predictions for Electric Utilities. Electric Power Systems Research 146, 236-245.
- 17. **Parent, J.** and J. Volin. 2016. Validating Landsat-based landscape metric with fine-grained land cover data. Ecological Indicators 60, 668-677.
- 18. **Parent**, **J.** and J. Volin. 2015. Assessing species-level biases in tree heights estimated from terrain-optimized leaf-off airborne laser scanner (ALS) data. International Journal of Remote Sensing 36:10, 2697-2712, DOI: 10.1080/01431161.2015.1047047.
- 19. **Parent, J.**, J. Volin, D. Civco. June 2015. A fully-automated approach to land cover mapping with airborne LiDAR and high resolution multispectral imagery in a forested suburban landscape. ISPRS Journal of Photogrammetry and Remote Sensing 104: 18-29.
- 20. **Parent J.**, M. Graziano, X. Yang. 2014. The potential of using forest residue to offset coal use in co-fired coal power plants in the eastern United States. *International Journal of Agricultural and Biological Engineering* 7: 99-105
- 21. **Parent, J.**, and J.C. Volin. 2014. Assessing the Potential for Leaf-off LiDAR Data to Model Canopy Closure in Temperate Deciduous Forests. ISPRS Journal of Photogrammetry and Remote Sensing 95: 134-145. DOI: 10.1016/j.isprsjprs.2014.06.009
- 22. Angel, S., **J. Parent**, D.L. Civco. 2012. The Fragmentation of Urban Landscapes: Global Evidence of a Key Attribute of the Spatial Structure of Cities, 1990-2000. *Environment and Urbanization* 24(1): 249-283.

- 23. Angel, S., **J. Parent**, D.L. Civco, A.M. Blei. 2012. The Persistent Decline in Urban Densities: Global and Historical Evidence of Sprawl. *Lincoln Institute of Land Policy Working Paper*.
- 24. Angel, S., **J. Parent**, D.L. Civco, A.M. Blei. 2011. The Dimensions of Global Urban Expansion: Estimates and Projections for All Countries, 2000-2050. *Progress in Planning*. 75(2): 53-108.
- 25. Angel, S., and **J. Parent**. 2011. Non-Compactness and Voter Exchange: Towards a Constitutional Cure for Gerrymandering. *Northwestern Interdisciplinary Law Review* 4(1): 89-146.
- 26. Angel, S., **J. Parent**, and D.L. Civco. 2010. Ten Compactness Properties of Circles: A Unified Theoretical Foundation for the Practical Measurement of Compactness. *Canadian Geographer*. Volume 54 (4), 441-461.
- 27. LaFleur, N., M. Rubega, and **J. Parent**. 2009. Do European Starlings (*Sturnus vulgaris*) Facilitate the Spread of Fleshy-Fruited Invasive Plants? *Journal of Torrey Botanical Society*. 136 (3): 332-341.
- 28. Hayward, P. and **J. Parent**. 2009. Modeling the Influence of the Modifiable Areal Unit Problem (MAUP) on Poverty in Pennsylvania. *The Pennsylvania Geographer*. 47 (1).

Books and Book Chapters

- 1. Angel. S., A. M. Blei, D. L. Civco, N. G. Sanchez, P. Lamson-Hall, **J. Parent**, K. Thom. 2017. Engaging with the Planet's Urban Expansion. Infinite Suburbia. Princeton Architectural Press, New York. 771 p.
- 2. Angel, S., A. M. Blei, **J. Parent**, P. Lamson-Hall, N. S. Sanchez, D. L. Civco, Q. Lei, K. Thom. 2016. The Atlas of Urban Expansion: The 2016 Edition, Volume 1: Areas and Densities. 489 p.
- 3. Angel, S., P. Lamson-Hall, M. Madrid, A. M. Blei, **J. Parent**, N. S. Sanchez, K. Thom. 2016. The Atlas of Urban Expansion: The 2016 Edition, Volume 2: Blocks and Roads. 564 p.
- 4. Volin, J., **J. Parent**, L. Dreiss. 2012. "Functional Basis for Geographic Variation in Growth Among Invasive Species." In S. Jose, Kohli, Batish, Singh (Eds.). Invasive Plant Ecology. CRC Press. 282 p.
- 5. Angel, S. and **J. Parent**. 2012. The Atlas of Urban Expansion. Lincoln Institute of Land Policy. 397 p.

Conference Proceedings and Other Publications

1. **Parent**, J. R., C. Witharana, and M. Bradley. 2021. Mapping Building Interiors with LiDAR: Classifying the Point Cloud with ArcGIS. International Archive for

- Photogrammetry, Remote Sensing and Spatial Information Sciences. https://doi.org/10.5194/isprs-archives-XLIV-M-3-2021-133-2021.
- 2. **Parent, J.**, C. Witharana. 2019. A Review of UAV Detection and Neutralization Options for Electric Substations. Eversource Energy. White Paper.
- 3. **Parent, J.**, C. Witharana, D. Wanik. 2017. Review of Remote Sensing Systems and Approaches for Monitoring Infrastructure and Vegetation. Eversource Energy. White Paper.
- 4. Angel, S., A.M. Blei, **J. Parent**, D.L. Civco. 2011. The Decline in Transit-Sustaining Densities in the U.S. Cities, 1910-2000. 2010 Land Policy Conference: The Environment, Climate Change and Land Policies. Lincoln Institute of Land Policy, May 23-25, Cambridge MA.
- 5. Kuo, C.Y., P.J. Auster, and **J. Parent**. 2010. Variation in planning-unit size and patterns of fish diversity: implications for design of marine protected areas. Marine Sanctuaries Conservation Series NMSP-ONMS-10-03. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Sanctuary Program, Silver Spring, MD.
- 6. Angel, S., **J. Parent**, D. Civco, and A. Blei, 2009. The Persistent Decline in Urban Densities: Global and Historical Evidence of Sprawl. White paper. Cambridge MA, Lincoln Institute of Land Policy.
- 7. Angel, S., **J. Parent**, D. Civco, and A. Blei, 2009. The Fragmentation of Cities and Its Decline: Global Evidence of Sprawl, 1990-2000. White paper. Cambridge MA, Lincoln Institute of Land Policy.
- 8. Angel, S., D. Potere, **J. Parent**, and A. Blei, 2009. The Expanding Footprint of Cities: Global Empirical Evidence on 'Sprawl'. Working Paper. Cambridge MA, Lincoln Institute of Land Policy.
- 9. Civco, D.L., A. Chabaeva, **J. Parent**, M. Ehlers, and A. Angel. 2008. Fusion of KH-Series Declassified Satellite Imagery and Landsat MSS Data in Support of Urban Land Cover Classification. Proc. 17th William Pecora Memorial Remote Sensing Symposium, Denver, CO
- 10. **Parent, J.**, J.D. Hurd, and D.L. Civco. June 2007. Simulating Future Forest Fragmentation in Northeastern United States. Proc. 2007 ESRI User Group Conference, San Diego, CA.
- 11. **Parent, J.**, J.D. Hurd, and D.L. Civco. May 2007. Simulating Future Forest Fragmentation in a Connecticut Region Undergoing Suburbanization. ASPRS Conference Proceedings. Tampa, FL.
- 12. Angel, S., **J. Parent**, and D. Civco. May 2007. Urban sprawl metrics: an analysis of global urban expansion using GIS. ASPRS Conference Proceedings. Tampa, FL.
- 13. **Parent, J.** 2006. Predicting Forest Fragmentation in the Salmon River Watershed of Connecticut. University of Connecticut. Masters Thesis.

14. Angel, S, S. C. Sheppard, D. L. Civco, R. Buckley, A. Chabaeva, L. Gitlin, A. Kraley, **J. Parent**, M. Perlin. 2005. The Dynamics of Global Urban Expansion. Transport and Urban Development Department. The World Bank. Washington D.C., September.

Manuscript Reviewer:

- 1. Canadian Journal of Remote Sensing
- 2. ISPRS Journal of Photogrammetry and Remote Sensing
- 3. Annals of the Association of American Geographers
- 4. Journal of Hydrology
- 5. Surveying and Land Information Science Journal
- 6. Remote Sensing of Environment
- 7. Geoscience and Remote Sensing Letters
- 8. Journal of Environmental Management
- 9. Transactions in GIS
- 10. Urban Agriculture and Regional Food Systems

CONFERENCE AND SEMINAR PRESENTATIONS

- 1. Parent, J. (2024, October). Assessing Geospatial Indicators of Tree Risk Using Power Outage Data. In *ASPRS Virtual Symposium*.
- 2. Henkenius, N., & Parent, J. (2024, October). Assessing Drone & Airborne LiDAR's Ability to Measure Forest Understories in Rhode Island. In *ASPRS Virtual Symposium*.
- 3. Dumarevskaya, L., & Parent, J. (2024, May). Mapping individual dead trees in Rhode Island using automatic classification of summertime aerial images. In *NEARC 2024 Annual Spring Conference*.
- 4. Dumarevskaya, L., & Parent, J. (2024, March). Mapping individual dead trees in Rhode Island using automatic classification of summertime aerial images. In *NEFPC 2024 Student Forum*.
- 5. Henkenius, N., & Parent, J. (2024, May). Assessing Drone & Airborne LiDAR's Ability to Measure Forest Understories in Rhode Island. In *NEARC 2024 Annual Spring Conference*.
- 6. Henkenius, N., & Parent, J. (2024, February). Predicting Shrub Cover in Rhode Island Deciduous Forests using LiDAR. In *AmericaView ESRC Monthly Meeting*.
- 7. Dumarevskaya, L., & Parent, J. (2023, October). Inventory of Standing Dead Trees in Rhode Island Using Remote Sensing and GIS. In *NEARC 2023 Annual Fall Conference*.
- 8. Henkenius, N., & Parent, J. (2023, October). Modeling Shrub Cover in Rhode Island Forests using Drone and Airborne LiDAR. In *NEARC 2023 Annual Fall Conference*.
- 9. Dumarevskaya, L., & Parent, J. (2023, June). Predicting Tree Mortality from Spongy Moth Outbreaks. In *ASPRS Virtual Symposium*.
- 10. Parent, J. (2023, June). A Rapid 2D Viewshed Analysis Based on Land Cover. In *ASPRS Virtual Symposium*.

- 11. Parent, J. (2023, June). Drone demonstration for URI Faculty and Students. In *URI Drone demonstration*.
- 12. Parent, J. (2023, Spring). Drones and GIS in HazMat Incidents. In URI Department of Geosciences.
- 13. Parent, J. (2023, Spring). GEO 587 Drone Demo for Hazardous Materials Operations. In *URI Department of Geosciences*.
- 14. Dumareveskaya, L., & Parent, J. (2023, February). Predicting Tree Mortality from Spongy Moth Outbreaks. In *AmericaView Earth Sensors & Research Committee Meeting*.
- 15. Helton, A., Parent, J., Barclay, J., Morandi, A., & Wright, D. (2023, April). Natural Resources Career Panel. In *University of Connecticut Alumni Career Panel*.
- 16. Parent, J., Bonynge, G., LaBash, C., Damon, C., & McCandless, S. (2023, May). Drones over Rhode Island: a Showcase and Demonstration of UAS by the Environmental Data Center and Town of Charlestown, RI. In *Northeast ArcUser Group Conference (Spring)*.
- 17. Dumarevskaya, L., & Parent, J. (2023, May). Predicting Tree Mortality from Spongy Moth Outbreaks. In *Northeast ArcUser Group Conference (Spring)*.
- 18. Henkenius, N., & Parent, J. (2023, May). Modeling Shrub Cover in Rhode Island Deciduous Forests using LiDAR. In *Northeast ArcUser Group Conference (Spring)*.
- 19. Hoffnagle, B., Parent, J., LaBash, C., Norton, R., & Dymkowski, T. (2023, May). Entering the Job Market? Leveling up your GIS Career? Let's Discuss.. In *Northeast ArcUser Group Conference (Spring)*.
- 20. Parent, J. (2023, May). Welcoming remarks. In Northeast ArcUser Group Conference (Spring).
- 21. Wedagedara, H., Joshi, D., Zhang, W., Witharana, C., Fahey, R., Cerrai, D., & Parent, J. (2022, December). Machine Learning Modelling for Predicting Roadside Forest Risk on Distribution Powerlines. In *American Geophysical Union*.
- 22. Parent, J. (2022, Autumn). A Rapid 2D Viewshed Analysis Based on Land Cover. In *Northeast Arc User Group Conference (Fall)*.
- 23. Parent, J., Gold, A., Vogler, E., & Lowder, K. (2022, March). Developing a Web Map to Characterize the Ecological and Social Impacts of Dam Removal. In *American Society for Photogrammetric Engineering and Remote Sensing Conference*.
- 24. Parent, J. (2022). GEO 587 Drone Demo for Hazardous Materials Operations. In GEO 587.
- 25. Parent, J., Janoudi, F., & Mandeville, A. (2022). GIS Panel Discussion for GEO and LAR students. In *Departments of Geology and Landscape Architecture*.
- 26. Parent, J., Gold, A., Vogler, E., & Lowder, K. (2021, Autumn). Developing a Web Map to Characterize the Ecological and Social Impacts of Dam Removal. In *Northeast Arc User Group Conference (Fall)*.

- 27. Lopez, D., Marshall, B., Collins, A., Arcoleo, K., Malloy, L., & Parent, J. (2021, November). Overdosing Behind the Wheel: Preliminary Results of the Examination of Human, Geographic, and Environmental Factors. In *2021 Substance Use Research Symposium*.
- 28. Joshi, D., Wedagedara, H., Parent, J., & Witharana, C. (2021, December). Geospatial Modelling of Vegetation Risk on Electric Utility Infrastructure in Connecticut. In *American Geophysical Union*.
- 29. Parent, J. (2021, June). Indoor Mapping with Handheld LiDAR in Enfield and Storrs, CT Technology Demonstration. In *Public Safety Communications Research Conference*.
- 30. Parent, J. (2021, June). Indoor Mapping with Handheld LiDAR in Enfield and Storrs, CT. In *Public Safety Communications Research Conference*.
- 31. Parent, J. (2021, March). Indoor Mapping with Handheld LiDAR in Enfield and Storrs, CT. In *American Society for Photogrammetric Engineering and Remote Sensing Conference*.
- 32. Parent, J., & Dumarevskaya, L. (2021, March). The Effect of Wire Insulation on Reducing Tree-Related Power Outages.. In *American Society for Photogrammetric Engineering and Remote Sensing Conference*.
- 33. Wedagedara, H., Joshi, D., Witharana, C., & Parent, J. (2021, March). Lidar-Enabled Modeling of Roadside Vegetation Risk to Electric Infrastructure. In *American Society for Photogrammetric Engineering and Remote Sensing*.
- 34. Dumarevskaya, L., & Parent, J. (2021, May). The Effect of Wire Insulation on Reducing Tree-Related Power Outages. In *Northeast Arc User Group Conference (Spring)*.
- 35. Parent, J. (2020, October). Assessing Vegetation Risk with Remote Sensing. In *New England International Society of Arboriculture Meeting*.
- 36. Parent, J. (2020, December). Using Lasers to Save Lives. In NIST's Public Safety Communications Research Webinar.
- 37. Parent, J. (2020, July). Indoor Mapping with Handheld LiDAR in Enfield and Storrs, CT. In *Public Safety Broadband Stakeholder Meeting*.
- 38. Parent, J. (2020, July). Indoor Mapping with Handheld LiDAR in Enfield and Storrs, CT Demonstration. In *Public Safety Broadband Stakeholder Meeting*.
- 39. Parent, J. (2020, February). Assessing the Effectiveness of Enhanced Tree Trimming. In *UConn Environmental Engineering Seminar*.
- 40. Parent, J. (2020, March). Mapping with LiDAR to Guide Utilities and First Responders. In *URI Big Data Seminar*.
- 41. Parent, J. (2019, Autumn). Indoor Mapping with Handheld LiDAR in Enfield and Storrs, CT. In *Northeast Arc User Group Fall Conference*.
- 42. Parent, J. (2019, October). Trees, Storms, and Power Lines: Mapping a Path toward Resilience. In *EPA Narragansett Lab Seminar*.

PUBLISHED GEOSPATIAL TOOLS

- 1. **Parent, J.** Shape Metrics. ArcGIS Code Sharing. Environmental Systems Research Institute. Available at https://arcg.is/18HiKe.
- 2. **Parent, J.** Drone Launch Site Evaluator. ArcGIS Code Sharing. Environmental Systems Research Institute. Available at https://arcg.is/1P0nif.
- 3. **Parent, J.** 2D Viewshed Tool. ArcGIS Code Sharing. Environmental Systems Research Institute. Available at https://arcg.is/0bff0b0

TEACHING EXPERIENCE

| NRS 409/509: Concepts of GIS and Remote Sensing (in-person, online) | 2020-present |
|--|--|
| NRS 410: Fundamentals of GIS (online) | 2020-present |
| NRS 522: Advanced GIS for Environmental Applications (online) | 2020-present |
| NRE 4575/5575: Natural Resources Applications of GIS (online and classroom) | 2016, 2018 |
| NRE 5585: Geospatial Data Processing Techniques – Developing Custom Tools with Python (online and classroom) | 2007, 2008, 2011, 2013, 2016, 2019 |
| NRE 5461: Landscape Ecology (classroom) | 2015 |
| Developing Custom Geoprocessing Tools: An Introduction to Python Scripting (workshop) | 2008-present (annual) |

GRADUATE STUDENTS ADVISED

In Progress:

- 1. John Crocket, PhD (committee member), expected 2024
- 2. Amanda Bunce, PhD (committee member), expected 2025
- 3. Natalie Meyer, PhD (committee member), expected 2025
- 4. Noah Henkenius, MS (major advisor), expected 2025
- 5. Oliver Tiliouine, PhD (committee member), expected 2026
- 6. Paige Aldenberg, MS (committee member), expected 2025
- 7. Sarah Lang, PhD (committee member), expected 2025
- 8. Andrew Sheerin, PhD (committee member), expected 2025

Completed:

- 1. Philip Yang, PhD (committee member), 2026
- 2. Dasan McElroy, MS (committee member), 2024
- 3. Elizabeth Points, MS (committee member), 2024
- 4. Farah Nusrat, PhD (committee member), 2023
- 5. Laken Ganoe, PhD (co-advisor), 2024
- 6. Isabel Whaling, MS (committee member), 2023
- 7. Nellie Amosi, PhD (committee member), 2024
- 8. Colby Slezak, PhD (committee member), 2024
- 9. Tim Jarvis, MS (defense chair), 2023
- 10. Albert Larson, PhD (defense chair), 2023
- 11. Roger Hart, PhD (committee member), 2024
- 12. Luke Martin-Jourdenais (committee member), 2022
- 13. Nina Oberg, MS (committee member), 2022
- 14. Fidaa Janoudi, MS (major advisor), 2022
- 15. Liubov Dumarevskaya, PhD (major advisor), 2024
- 16. Luran Dong, Ph.D. (committee member), 2023
- 17. Maria Manz, M.S. (committee member), 2021
- 18. Jarron Vanceylon, Ph.D. (committee member), 2023
- 19. Justin Fellers, M.S., (committee member), 2021
- 20. Faramarzi, Masoud, PhD, (committee member)
- 21. Alveshere, Brandon, PhD, (committee member), 2023
- 22. Moataz Kilany, PhD (committee member), 2023
- 23. Zhijie Zhang, PhD (committee member), 2023
- 24. Dickens Molo, M.S. student (committee member), 2021
- 25. Zhiyuan Yang, M.S. student, non-thesis (committee member)
- 26. Daniel Hale, M.S. student (committee member), 2019
- 27. David Wanik, PhD student (committee member), 2017
- 28. Elliot Volin, M.S. student (committee member), 2019
- 29. Cong Liu, M.S. student (committee member), 2018
- 30. Michelle Kosmos, M.S. student, non-thesis (co-advisor), 2016
- 31. Amanda Bunce, M.S. student (co-advisor)

PROFESSIONAL SKILLS AND KNOWLEDGE

Software: ArcGIS Pro; Microsoft Office (Word, Excel, Access, PowerPoint)

Programming language: Python with ArcGIS.

Knowledge: Geographic Information Systems and remote sensing; landscape ecology; forest ecology; spatial statistics; environmental science; GPS mapping/surveying; geodesy; database management, ArcGIS Online.