

Mayra A. Román Rivera

PhD

Knoxville, TN

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AREAS OF INTEREST

Coastal Geomorphology, Coastal Management and Governance, Remote Sensing and GIS Applications of Coastal Environments, Geography Education, Community Engaged Learning, Community Outreach (i.e. citizen science projects, science education)

EDUCATION

Ph.D. University of South Carolina (Geography, 2019)
M.A. East Carolina University (Geography, 2014)
B.A. University of Puerto Rico, Río Piedras Campus (Geography and Anthropology, 2012)

ACADEMIC POSITIONS

Teaching Assistant University of Tennessee, Department of Geography and Sustainability,
Professor February 2025-
Lecturer University of Tennessee, Department of Geography and Sustainability,
August 2021-January 2025
Research Assistant University of South Carolina, Department of Geography,
April 2020-August 2020
Carolinas Integrated Science and Assessments
Adjunct Faculty University of South Carolina, Department of Geography,
August 2019- May 2020

OTHER SIGNIFICANT PROFESSIONAL POSITIONS AND LEADERSHIP

2025- *Board Member*, National Council for Geographic Education
2024- *Chair*, Latin American and Caribbean Studies Interdisciplinary Program,
University of Tennessee-Knoxville.
2024- *Faculty Senator*, University of Tennessee-Knoxville.
2024 *Faculty Fellow*, Supportive Teaching for Academic Resilience (STAR),
University of Tennessee-Knoxville.

- 2024- *Member*, Commission for the Latin American Volunteer Experience, University of Tennessee-Knoxville.
- 2023- *Council Member*, Arts and Sciences Dean's Lecturer Council, University of Tennessee-Knoxville.
- 2023- *Social Media Coordinator*, Caribbean Geography Specialty Group of the American Association of Geographers (CGSG:AAG).

PUBLICATIONS

(*indicates undergraduate student author)

Peer-Reviewed

- Alderman, D., **Román-Rivera, M.A.**, Camponovo, M., and Kesler, R. (2024). *Mapping as Black Memory Work: Toward a Restorative Cartography of Urban Renewal/Removal in Knoxville, Tennessee*. Geographical Review: doi.org/10.1080/00167428.2024.2376147.
- Ellis, J.T., **Román-Rivera, M.A.**, Harris, M., and Tereszkievich, P. (2020). *Two Years and Two Hurricanes Later: Did the Dunes Recover?* Shore and Beach, 88(4).
- Román-Rivera, M.A.**, Ellis, J.T., and Wang, C., (2020). *Applying a Rule-Based OBIA Approach for Nearshore Bar Identification*. Journal of Remote Sensing, 14(4): doi: 10.1117/1.JRS.14.044502
- Ellis, J.T., Harris, M., **Román-Rivera, M.A.**, Ferguson, J.B., Tereszkievich, P. and McGill, S. (2020) *Application of the Saffir-Simpson Hurricane Wind Scale for Estimating Sand Dune Response to Tropical Storms*. Special Issue Journal of Marine Science and Engineering, 8 (9): https://doi.org/10.3390/jmse8090670.
- Ellis, J.T., and **Román-Rivera, M.A.** (2019). *Assessing Natural and Mechanical Dune Performance in a Post-Hurricane Environment*. Special Issue Journal of Marine Science and Engineering, 7 (126): doi:10.3390/jmse7050126.
- Román-Rivera, M.A.**, and Ellis, J.T. (2019). *A Synthetic Review of Remote Sensing Applications to Detect Nearshore Bars*. Marine Geology, 408: pp. 144-153.
- Román-Rivera, M.A.**, and Ellis, J.T. (2018). *LETTERS TO THE EDITOR: The King Tide Conundrum*. Journal of Coastal Research. 34 (4): pp. 769-771.

Other

- Román-Rivera, M.A.** (2018) *Review of Spatial Analysis of Coastal Environments by Sarah Hamylton*. AAG Review of Books, 6(4).
- Román-Rivera, M.A.**, and Ellis, J.T. (2018). *Dunes: The Coasts' First Line of Defense*. Southeastern Geographer. 58 (2): pp. 141-142.

RESEARCH EXPERIENCE

- 2016-2020 Hurricane Recovery at Isle of Palms, SC
Research Co-Lead
- 2015 Woods Hole Oceanographic Institute Research Experience
Guest Student
- 2012-2014 Blowout Dynamics at Cape Cod, MA

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| 2013 | Research Assistant Stream Channel Adjustments in a North Carolina Watershed GIS Analyst |
| 2010-2012 | Beach Monitoring Project Field Assistant |
| 2009-2012 | Citizen Scientist Volunteer Field Assistant |

TEACHING EXPERIENCE

University of Tennessee

Lecturer

Geography 131: Weather, Climate, and Climate Change
 Geography 132: Landscapes and Environmental Change
 Geography 200: Environmental Issues in National Parks
 Geography 331: Natural Hazards
 Geography 333: Climate Change and the Human Response
 Geography 420: GIS in the Community

University of South Carolina

Instructor of Record and Adjunct Faculty

Geography 104: Introduction to Physical Geography
 Geography 105: The Digital Earth
 Geography 363: Introduction to Geographic Information Systems

Graduate Teaching Assistant

Geography 201: Landform Geography Lab
 Marine Science/Geology 215: Coastal Environments of the Southeastern U.S. Lab

CERTIFICATIONS

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| 2022 | Online Teaching and Learning Certificate, University of Tennessee-Knoxville |
| 2021 | Certified Interpretive Guide, National Association for Interpretation |
| 2020 | Online Teaching Certificate, Center for Teaching Excellence, University of South Carolina |
| 2018 | Preparing Future Faculty, Center for Teaching Excellence, University of South Carolina |
| 2014 | Geographic Information Science and Technology Certificate, The Graduate School of East Carolina University |

INVITED TALKS

[My] Coastal studies through the years guest lecture for ENVS 190 – Earth 2.0: Geospatial Insights at Emory University: November 12, 2024

Mapping with Meaning: Significance Beyond Georeferencing at Flo Analytics team meeting: July 11, 2024.

Relating nearshore bar morphology and wave events to the beach-dunes system at International Association of Geomorphologists, International Geomorphology Week Webinar for North America: March 1st, 2022.

Coastal Management Practices Gone Wrong at University of Tennessee-Knoxville – Department of Geography Colloquium Series: October 28, 2021.

PRESENTATIONS

(**Presenting author**; *undergraduate student author; included most recent presentations)

Román-Rivera, M. *GIS in the Community: Giving students practical experience while making meaningful community connections.* Paper presentation at the National Geographic Council for Geographic Information Annual Conference, Tempe, AZ. (October 2024)

Román-Rivera, M., *Learning Physical Geography through Mythology and Folklore.* Paper presentation at the National Geographic Council for Geographic Information Annual Conference, Tempe, AZ. (October 2024)

Román-Rivera, M., Buskirk, A. and Patel, S. *Caribbean Winter: Coastal Damages Caused by Cold Front Remnants.* Paper presentation at the Conference of Latin American Geographers, San Juan, PR. (April 2024)

Buskirk, A.* and Román-Rivera, M. *Unveiling Winter Surges: Wave Energy and Beach Dynamics in the Caribbean.* Poster presentation at the Exhibition of Undergraduate Research and Creative Achievement (EURēCA), University of Tennessee, Knoxville, TN. (April 2024)

Román-Rivera, M., and Alderman, D. *Mapping with Meaning: Significance Beyond Georeferencing.* Presentation at the Tennessee Geographic Information Council Annual Meeting, Burns, TN. (April 2024)

Román-Rivera, M. *GIS in the Community: Giving students practical experience while making meaningful community connections.* Presentation at the Education Summit at the Esri User Annual Conference, San Diego, CA. (July 2023)

Román-Rivera, M. *GIS in the Community: Giving students practical experience while making meaningful community connections.* Presentation at the Tennessee Geographic Information Council Annual Meeting, Memphis, TN. (April 2023)

Bell, J.*, and Román-Rivera, M. *Understanding Devastating Summer Flooding of Hazard, Kentucky.* Exhibition of Undergraduate Research and Creative Achievement (EURēCA), University of Tennessee, Knoxville, TN. (April 2023)

Bell, J.*, and Román-Rivera, M. *Understanding Devastating Summer Flooding of Hazard, Kentucky.* Poster GeoSym, University of Tennessee, Knoxville, TN. (February 2023)

Bell, J.*, and Román-Rivera, M. *Changing Coastal Management Perspectives: Comparing transverse sand bars to hardened structures.* Poster Discovery Day University of Tennessee, Knoxville, TN. (September 2022)

- Bell, J.***, and Román-Rivera, M. *Changing Coastal Management Perspectives: Comparing transverse sand bars to hardened structures*. Presentation at the Tennessee Geographic Information Council Annual Meeting, Nashville, TN. (April 2022)
- Ferguson, J., Ellis, J., Harris, M., **Román-Rivera, M.**, and Tereszkievicz, P. *Geomorphic Response of the Beach-Dune System to the 2017 and 2018 Hurricane Seasons at the Isle of Palms, SC*. Annual Meeting of the American Shore and Beach Preservation Association, Session 1C: Coastal Response to Storms. Myrtle Beach, SC. (October 2019)
- Román-Rivera, M.** and Ellis, J.T. *Using Multispectral Imagery to Detect Nearshore Bars and Elucidate Beach-Dune System Dynamics*. Paper presentation at the American Association of Geographers Annual Meeting, Washington D.C. (April 2019)
- Román-Rivera, M.** and Ellis, J.T. *The King Tide Conundrum*. Paper presentation at the American Association of Geographers Annual Meeting, New Orleans, LA. (April 2018)
- McGill, S., Ellis, J.T., and **Román-Rivera, M.** *Investigating Post-Hurricane Damage Mitigation Techniques on Dune System Recovery*. Paper presentation at the American Association of Geographers Annual Meeting, New Orleans, LA. (April 2018)
- McGill, S., Ellis, J.T., and **Román-Rivera, M.** *Comparing Dune Recovery Management Techniques Post-Hurricane*. Poster presentation at the Southeastern Division of the American Association of Geographers, Starkville, MS. (November 2017)
- Román-Rivera, M.**, and Ellis, J.T. *Beach-dune Recovery Along the South Carolina Coast Post Hurricane Matthew*. Paper presentation at the American Association of Geographers Annual Meeting, Boston, MA. (April 2017)

PANEL PARTICIPATION

- Panelist, **Conference of Latin American Geographers**, San Juan, PR, 2024: *Mentoring Panel*. Discussion on mentoring in the context of geographical research in Latin America.
- Organizer, **American Association of Geographers**, Hawaii, 2024: *Resilience In/Beyond Climate Colonialism: Conversations across the Caribbean*. This panel delved into the intersections of disaster capitalism, island coloniality, and environmental justice in the Caribbean.

PROFESSIONAL DEVELOPMENT

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| 2024 | BRIGHT E workshop, Exploring Coastal Flooding Risk Through Geospatial Storytelling, National Center for Atmospheric Research in Boulder Colorado. August 12-13, 2024. |
| 2024 | GeoCamp Iceland, National Council for Geographic Education, Iceland, June 28-July 7, 2024. |

FELLOWSHIPS AND AWARDS

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| 2023 | Faculty Research Assistant Funding, Office of Undergraduate Research, University of Tennessee-Knoxville (Spring 2023 and Fall 2023) |
| 2022 | Faculty Research Assistant Funding, Office of Undergraduate Research, University of Tennessee-Knoxville (Summer 2022 and Fall 2022) |
| 2022 | Departmental Research Assistant Award, Office of Undergraduate Research, University of Tennessee-Knoxville. (Spring 2022) |
| 2018 | Southern Regional Education Board Dissertation Award Recipient |
| 2018 | American Association of Geographers Dissertation Research Grant |
| 2016-2017 | Department of Geography Graduate Instructor Award Recipient, University of South Carolina |
| 2016-2017 | Department of Geography Bennett S. Masaschi Field Experience Graduate Award Recipient, University of South Carolina |
| 2012 | Magna Cum Laude, University of Puerto Rico, Río Piedras Campus |
| 2011-2012 | Scholars in Residence: Initiative of Undergraduate Research and Creative Activity, University of Puerto Rico, Río Piedras Campus |

PROFESSIONAL AFFILIATIONS

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| 2023-present | National Council of Geographic Education |
| 2020-present | National Association for Interpretation |
| 2019-present | American Association of Hispanics in Higher Education |
| 2015-present | American Shore and Beach Preservation Association |
| 2014-present | Gamma Theta Upsilon International Geographic Honor Society |
| 2013-present | Geographic Society of Puerto Rico |
| 2013-present | Southeastern Division of the American Association of Geographers |
| 2010-present | American Association of Geographers |

PROFESSIONAL SERVICE

Undergraduate Advising and Graduate Committee Membership

Undergraduate Level

- Alexa Buskirk, Undergraduate student in Department of Geography and Sustainability, University of Tennessee, Knoxville (Fall 2023- Spring 2024).
- Sophia Jodoin, Undergraduate student in Department of Geography and Sustainability, University of Tennessee, Knoxville (Fall 2023- Spring 2024).

- Jonathan Bell, Undergraduate student in Department of Geography and Sustainability, University of Tennessee, Knoxville (Spring 2022-Spring 2023).

Graduate Level

- Brian Boyce, PhD student in Geography, University of Tennessee, Knoxville (in progress; Committee Member)
- Abel Traslaviña Arias, PhD student in Geography, University of Tennessee, Knoxville (in progress; Committee Member)
- Bergit Uhran, PhD student in Geography, University of Tennessee, Knoxville (in progress; Committee Member)
- Jack Spinning, Master in Geography, University of Tennessee, Knoxville (Graduated Fall 2023; Committee Member)

University Service

Departmental-level Service

Member, Sustainability Lecturer Search Committee, Department of Geography and Sustainability, University of Tennessee – Knoxville (April 2024)

Faculty advisor, GeoSym, a graduate student organized conference sponsored by the Department of Geography and Sustainability at University of Tennessee - Knoxville (October 2022 – February 2023)

College-level Service

Judge, Exhibition of Undergraduate Research and Creative Achievement (EURECA), University of Tennessee - Knoxville (April 2022, April 2023, April 2024)

Disciplinary Service

Member, Education Committee of the Tennessee Geographic Information Council (April 2024-)
Summary Reviewer, U.S. Coastal Research Program Human & Ecosystem Health Workshop (October 2021)

Conference session organizer, Coastal and Marine Specialty Group of the American Association of Geographers (October 2018-April 2020)

Spanish translation reviewer for portions of the National Climate Assessment (NCA4) (October 2018)

Member, Organizing Committee of the Caribbean Specialty Group of the American Association of Geographers (April 2018-April 2019)

Doctoral Student Board Member, Coastal and Marine Specialty Group of the American Association of Geographers (April 2015-April 2016)

Manuscript Reviewer (in alphabetical order)

Climate Risk Management

Frontiers in Remote Sensing

Geomorphology

Journal of Coastal Research

Journal of Marine Science and Engineering

*ISPRS International Journal of Geo-
Information*
Marine Geology

Physical Geography
Remote Sensing
Southeastern Geographer

External Service

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| 2023- | Letters to a Pre-scientist Mentor |
| 2023-2024 | National Science Foundation Mentorship Program Full Steam Ahead Mentor |
| 2021- | Reviewer for applications of the Bob Belle Service Grant Award from the Southern Regional Educational Board. |
| 2020 - | Reviewer for applications of the Southern Regional Educational Board Dissertation and Doctoral Fellowships. |
| 2018 | Community service-learning project: Ballooning for the Scientific Method, White Knoll Elementary, Lexington South Carolina |
| 2017 | Outreach activity during the Total Solar Eclipse, Indian Waters Council Boy Scouts of America, Camp Barstow Columbia, South Carolina |
| 2009-2011 | Volunteer research assistant, Para La Naturaleza, Conservation Trust of Puerto Rico |