



University of Georgia

Ph.D. Student Assistantship in Atmospheric Science/Coastal Engineering

Position Description: The University of Georgia (UGA) Department of Geography (<https://geography.uga.edu/>) and the School of Environmental, Civil, Agriculture, and Mechanical Engineering (<https://engineering.uga.edu/schools/ecam>) is seeking a highly-motivated Ph.D. student to begin Fall 2023. The graduate student will work under Dr. Matthew Bilskie and Dr. Marshall Shepherd with an affiliation with the Institute for Resilient Infrastructure Systems (IRIS; <https://iris.uga.edu/>) and the Coastal Ocean Analysis and Simulation Team (COAST; <https://www.coast.engr.uga.edu>). The Ph.D. student will also work with graduate students, post-docs, and faculty affiliated with IRIS.

The general scope of the Ph.D. project is to assess the pre- and post-disaster performance of natural (e.g., coastal wetlands, dunes, barrier islands, etc.) as proxies for the performance of nature-based features. The Ph.D. student will be responsible for developing novel field-data collection methods, performing coastal hydrodynamic model simulations, and linking measurements and models to develop guidance on the performance of nature-based solutions during extreme weather conditions.

The student assistantship includes a full tuition waiver, stipend, and funds to attend conferences and workshops. Funding is being made available through the Network for Engineering with Nature (N-EWN; <https://n-ewn.org/>) program.

Qualifications: Candidates have an M.S. degree in Atmospheric Science, Physics, Mechanical, Civil, Environmental, Coastal Engineering, or a related field. The ideal candidate will have experience with computer programming /scripting (Matlab, Fortran, Python, R, bash scripting, etc.), the Linux command line, and GIS. Experience with atmospheric and/or coastal hydrodynamic models (WRF, ADCIRC, DELFT3D, XBEACH, etc.) and fieldwork (ADCP, pressure sensors, GPS RTK) is a plus. Strong communication and writing skills and the ability to work within a lab group setting are essential. Although it is not necessary to have all these skills at the start, the ideal candidate will be willing to learn from others and motivated to self-teach skills.

Please contact Dr. Matthew Bilskie by email at mbilskie@uga.edu with the subject heading “Graduate Student Inquiry – PrePostDisaster” and provide a cover letter, CV, and contact information for at least three references.

The UGA COAST and IRIS lab is located in the new \$64 million Interdisciplinary-STEM-II building with state-of-the-art research and laboratory space.

<https://news.uga.edu/uga-completes-phase-2-of-stem-research-complex/>