University of Georgia

Ph.D. Student Assistantship in Coastal Nature-Based Feature Design

Position Description: The University of Georgia (UGA) 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 be part of the Coastal Ocean Analysis and Simulation Team (COAST; https://www.coast.engr.uga.edu). The Ph.D. student will also work with other graduate students, post-docs, and faculty affiliated with the Institute of Resilient Infrastructure Systems (https://www.iris.uga.edu/).

The general scope of work includes hydrodynamic modeling of the coastal nature-based features (e.g., barrier island and salt marsh environments) with a substantial fieldwork component. The Ph.D. student will develop hydrodynamic and sediment transport models to assess flood mitigation strategies for various landscape configurations that will inform the future engineering design of nature-based infrastructure. The student will also assist in field campaigns involving RTK-GPS surveys, and deployment of monitoring equipment (ADCPs and pressure transducers), among others. There will be a tight-knit collaboration with other graduate students and post-docs across an interdisciplinary research team.

The student assistantship includes a full tuition waiver, stipend, and funds to attend conferences and workshops.

Qualifications: Candidates have an M.S. degree in Mechanical, Civil, Environmental, or 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 coastal hydrodynamic models (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 "UGA COAST Graduate Student Inquiry – NEWN Scales" 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/