TEXAS A&M
Institute of
Data Science

Seminar Series

Date:
October 28, 2024

Time:
2:00 - 3:00 pm

Location:
Blocker 220 and Zoom

Faculty host:
Dr. Yalong Pi, Director of TAMIDS Operational Data Science Lab

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Zoom ID:
974 9688 4861
Passcode: 923446

Click here to join the Zoom meeting!

Dr. David Retchless

Associate Professor, Department of Marine & Coastal Environmental Science, TAMU College of Marine Sciences & Maritime Studies

Dr. Retchless received his Ph.D. in Geography from Pennsylvania State University in 2015 and is an Associate Professor in the Department of Marine & Coastal Environmental Science at Texas A&M University at Galveston. His research foci include communicating climate change and coastal hazards, geospatial tool design and evaluation, and geospatial analysis of coastal and marine change. He has expertise in geospatial design, augmented reality, cartography, web mapping, user testing and evaluation, and mobile application development.

Community-engaged map and augmented reality tools for storm surge flooding: Prior work and new directions for coastal hazardscape communication

Storm surge flooding threatens hundreds of thousands of persons and billions of dollars in property in the Houston-Galveston metro area. In a series of studies, cartographic and augmented reality (AR) visualizations of storm surge hazard and impact zones in the Galveston Bay Area were developed and user tested. Results from these studies are presented, with emphases on community engaged design and how data management and design decisions (e.g., scale, data variable selection, level of aggregation, filtering, symbology, and perspective) can radically alter the shape and character of the hazard zone. While some quantitative results are presented, particular consideration is given to qualitative assessments of how such data and design decisions situate the hazard relative to the users of these map and AR-based tools.

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