John Malito

Professional Summary

June 30, 2025

Business address:	The University of Texas at Austin
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Professional Preparation

Professional Appointments

Research Scientist Associate III, UT Austin Bureau of Economic Geology (June 2022-Present) o Developed machine learning approach (in python) to analyze water quality/quantity and assessed

spatiotemporal variability in various environmental resource datasets

o Implemented new ensemble streamflow forecasts into multi-reservoir hydrologic model to assist development of Forecast Informed Reservoir Operations project in central Texas

o Conducted report for TCEQ on potential nitrate contamination in Texas aquifers groundwater using GIS spatial analysis tools and analysis of statewide dataset of well measurement

o Assessment of Nitrate in Groundwater and Public Water Supply Systems in Texas

o Conducted report for TCEQ on potential mobilization of contaminants during high-flow events and possible implications on managed aquifer recharge structures in Texas

o Stormwater Quality in Non-Karst Regions of Texas and Local Case Studies of Enhanced Recharge Structures

o Developed proposals, published research results in academic journals, and presented findings in conferences

Environmental/GIS Specialist, CBD Civil Engineering & Surveying (July 2018-July 2019)

o Conducted environmental assessments, mapping, and documentation for CBD projects within federal, state, and municipal environmental guidelines

o Used GIS data analysis tools to construct and maintain environmental data layers to support engineering operations.

o Developed a geospatial model in ArcGIS to automate the workflows in which GIS layers were compiled, clipped to a project site, and converted into AutoCAD Civil3D.

o Manipulated LiDAR point clouds produce digital elevation models in order to create maps, delineate streams, create topographic contours, calculate acreage of drainage basins, etc. using this elevation data.

Theses

Evolution of Arctic Continental Shelves: Modelling Morphodynamic Feedbacks to Climate-Driven Increases in Sea States, University of North Carolina at Chapel Hill, 2021, 53 p.

Continuing Education Courses Taken

Deltares XBeach Course - Morphodynamic modeling during storm conditions: Deltares, Online, April 15-20, 2023

Areas of Expertise

Areas of Expertise

Research interests include data analytics, machine learning, oceanographic modeling, coastal

evolution, sustainable reservoir management, and aquifer storage and recovery

<u>Service</u>

External Committees Participation

BEG Representative, Texas Groundwater Protection Committee, Texas Commission on Environmental Quality, Groundwater Issues, TCEQ, September 1, 2022-Present

Presentations

Invited Presentations

Assessment of Nitrate in Groundwater and Public Water Systems in Texas: presented to Texas Groundwater Protection Committee, Texas Commission on Environmental Quality,, presented at Texas Groundwater Protection Committee Meeting, Online, October 2023-Present.

Incorporating Ensemble Inflow Forecasts into the Brazos River Authority's Operational Reservoir Model: presented to Forecast Informed Reservoir Operations in Texas Workshop, presented at University of Texas at Arlington, Arlington, TX, September 2023-Present.

Stormwater Quality for Managed Aquifer Recharge in Texas: presented to Underground Injection Controls and Radioactive Materials Division, presented at Texas Commission on Environmental Quality Environmental Trade Fair 2023, Austin, TX, May 2023-Present.

Increasing wave energy moves Arctic continental shelves toward a new future: presented to Central Career Center, presented at American Geophysical Union Conference, Chicago, IL, December 2022-Present.

Presentations

Intended vs unintended consequences of modifying coastal river channels: presented to Softrock Seminar Series, presented at Jackson School of Geosciences, San Antonio, TX, September 2023-Present.

Assessing Stormwater Quality and Quantity for Managed Aquifer Recharge in Texas: presented to Managed Aquifer Recharge: Unleashing Resiliency, Protecting GW Quality, presented at National Groundwater Association Conference, San Antonio, April 2023-Present.

Publications

Peer Reviewed Journal Articles

Malito, J., and Mohrig, D., 2024, Unintended consequences of modifying coastal river systems: Frontiers in Marine Science, v. 11, no. 1492435, 14 p., http://doi.org/10.3389/fmars.2024.1492435.

Malito, J., Eidam, E., and Nienhuis, J., 2022, Increasing wave energy moves Arctic continental shelves toward a new future: Journal of Geophysical Research: Oceans, v. 127, no. e2021JC018374, 22 p., http://doi.org/10.1029/2021JC018374.

Scanlon, B. R., Fakhreddine, S., Reedy, R. C., Yang, Q., and Malito, J. G., 2022, Drivers of spatiotemporal variability in drinking water quality in the United States: Environmental Science & Technology, v. 56, no. 18, p. 12965-12974, http://doi.org/10.1021/acs.est.1c08697.

Contract Reports

Malito, J., Scanlon, B. R., and Fakhreddine, S., 2023, Geochemical Analysis of Selected Sediment Samples from Aquifer Storage and Recovery Wells in Texas: Preliminary Report prepared for Texas Commission on Environmental Quality, under contract no. 582-20-10271.

Malito, J., Scanlon, B. R., and Fakhreddine, S., 2023, Literature Review: Water Quality Management for Improved Stormwater Recharge in non-Karst Regions: Preliminary Report prepared for Texas Commission on Environmental Quality, under contract no. 582-20-10271, 33 p.

Malito, J., Scanlon, B. R., and Fakhreddine, S., 2023, Site Selection Criteria for Enhanced Recharge from Stormwater - with emphasis on Non-Karst Regions of Texas: Preliminary Report prepared for Texas Commission on Environmental Quality, under contract no. 582-20-10271, 46 p.

Malito, J., Scanlon, B. R., and Fakhreddine, S., 2023, Stormwater Quality in Non-Karst Regions of Texas and Local Case Studies of Enhanced Non-Karst Recharge Structures: Preliminary Report prepared for Texas Commission on Environmental Quality, under contract no. 582-20-10271, 64 p.

Published Abstracts

Scanlon, B. R., Rateb, A., Reedy, R. C., and Malito, J., 2022, Assessing the Impacts of Agrohydrology on Water Resources in the High Plains Aquifer (abs.): AGU Fall Meeting Abstract H15Q-0992, Invited.