WILLIAM NGUYEN

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EDUCATION

The University of Texas at Austin August 2020 - Present
Ph.D. in Geological Sciences (ongoing)
Supervisor: Dr. M. Bayani Cardenas

University of Maryland, College Park August 2016 - August 2020
B.S. in Geology with Honors
Thesis: *The influence of road salts on the mobilization of bioreactive elements in regenerative stormwater conveyance systems*
Supervisor: Dr. Sujay Kaushal and Jenna Reimer

RESEARCH EXPERIENCE

Woods Hole Oceanographic Institution May 2019 - August 2019
Summer Student Fellow *Woods Hole, MA*

- Coastal Groundwater Geochemistry Laboratory of the Department of Marine Chemistry and Geochemistry.
- Funded by NSF-REU "Ocean Sciences & Engineering at Woods Hole Oceanographic Institution".
- Analyzed mechanisms of water movement using $^{224}Ra - ^{228}Th$ disequilibria and endmember mixing analyses; quantified solute transport through underground seepage and at the sediment-water interface.
- Supervisors: Drs. Matthew Charette and Joseph Tamborski

Texas A&M University May 2018 - August 2018
NSF-REU Undergraduate Researcher *College Station, TX*

- Department of Civil Engineering; Geology & Geophysics
- Funded by NSF-REU "Ecohydrology of Tropical Montane Forests - Diversity in Science, Interdisciplinary Breadth, and Global Awareness"
- Partitioned source waters using stable isotope tracers ($\delta^{18}O$ and δD); analyzed fate and transport of nutrients through forested, mountainous watersheds in Costa Rica
- Supervisors: Drs. Gretchen Miller and Peter Knappett

University of Maryland, College Park May 2017 - May 2019
Field & Lab Assistant *College Park, MD*

- Biogeochemistry Laboratory of the Department of Geology
- Focused on biogeochemical cycles ad their interactions with urban developments: element cycles (C, N, P), road salt, and urban karst
- Supervisor: Dr. Sujay Kaushal

University of Maryland, College Park October 2015 - August 2016
Research Intern *College Park, MD*

- Geomorphology and Ecohydrology Laboratory of the Department of Geology
- Completed a research capstone on the hydrologic and geomorphic controls of stream temperature
- Examined the role of stormwater runoff and channel geometry on stream warning in the Anacostia watershed
- Supervisor: Dr. Karen Prestegaard

JOURNAL PUBLICATIONS

[1] Kaushal, S., K. Wood, J. Galella, A. Gion, S. Haq, P. Goodling, K. Haviland, J. Reimer, C. Morel, B. Wessel, **W. Nguyen**, J. Hollingsworth, K. Mei, J. Leal, J. Widmer, R. Sharif, P. Mayer, T. Newcomer Johnson, K. Delaney Newcomb, E. Smith, and K. Belt, "Making 'Chemical Cocktails' - Evolution of Urban Geochemical Processes across the Periodic Table of Elements," *Applied Geochemistry* (Invited; Accepted with Minor Revisions). 2020.

CONFERENCE PRESENTATIONS

[5] **Nguyen, W.**, J. Tamborski, and M. Charette, "Applications of the Radium Quartet to Quantify Water Exchange in Salt Marshes," *AGU Fall Meeting 2019*, San Francisco, CA (Poster)

[4] Riddle, D., P. Knappett, G. Aguilar, R. Hamid, M. Zapata, **W. Nguyen**, L. Gomez, J. Brumbelow, and G. Moore, "Rain or Shine: Changes in Water and Mass Fluxes of a Pristine Watershed in Response to Rainfall Events and Regional Drought," *AGU Fall Meeting 2019*, San Francisco, CA (Poster)

[3] Keebler, A., M. Everett, M. Rivera, **W. Nguyen**, G. Moore, J. Brumbelow, and L. Gomez, "Electromagnetic Geophysical Mapping of a Stream Channel in a Tropical Montane Rainforest in Costa Rica," *AGU Fall Meeting 2018*, Washington DC (Poster)

[2] Gomez, L., **W. Nguyen**, P. Knappett, A. Duffy, E. Prior, A. Keebler, G. Moore, and J. Brumbelow, "Measuring Mass Fluxes of Nutrients to a First-Order Stream within a Pristine Mountain Rainforest in Costa Rica," *AGU Fall Meeting 2018*, Washington, DC (Poster)

[1] **Nguyen, W.**, L. Gomez, A. Duffy, P. Knappett, G. Miller, J. Brumbelow, E. Prior, A. Keebler, and G. Moore, "Streamflow Responses to Runoff and Shallow Groundwater Fluctuations within Two Nested Watersheds in Costa Rica," *AGU Fall Meeting 2018*, Washington, DC (Poster)

GRANTS & AWARDS

National Science Foundation Graduate Research Fellowship August 2020 - August 2025
$138,000

UT Austin Recruitment Fellowship August 2020 - August 2021
$xx,000

Green Scholarship in Environmental Science & Restoration October 2019
$7,143

OTHER EXPERIENCE

Kids Excelling in Math & Science Mentor August 2019 - March 2020
UMD Geology Club Treasurer August 2019 - May 2020
Maryland Day Volunteer for UMD Department of Geology May 2019
UMD Geology Club President August 2018 - May 2019
Maryland Day Volunteer for UMD Department of Geology May 2018

TECHNICAL STRENGTHS

Programming Languages	R, MATLAB, Python
Software	COMSOL Multiphysics (beginner)
Databases	MySQL
Tools	Vim, Git
Instrumentation	ICP-OES, Ion Chromatography, UV-1800 Spectrophotometer, FluoroMax-Spectrofluorometer, Radium Delayed Coincidence Counter (RaDeCC), Germanium detector ($\gamma - counting$)