# WILLIAM NGUYEN

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## EDUCATION

**The University of Texas at Austin** August 2020 - Present
Ph.D. in Earth & Planetary Sciences (expected May 2026)
Thesis: *The dynamic iron curtain surrounding fluctuating rivers and its impacts on arsenic fate and transport*

**University of Maryland, College Park** August 2016 - August 2020
B.S. in Geology with Honors

## PROFESSIONAL EXPERIENCE

**Teaching Assistant** - The University of Texas at Austin August 2022 - June 2023
Dept. of Earth & Planetary Sciences Austin, TX

Led labs and field modules on groundwater flow, geochemical processes, and field hydrogeologic techniques for three undergraduate/graduate courses (10-30 students/term): Groundwater Hydrology/Physical Hydrogeology, Aqueous Geochemistry, and Field Methods in Hydrogeology

**Graduate Researcher** - The University of Texas at Austin August 2020 - Present
Dept. of Earth & Planetary Sciences - *Cardenas Hydrology Research Group* Austin, TX

Built and calibrated numerical models simulating unsaturated flow and reactive solute transport in tidally-influenced aquifer systems to inform redox and contaminant dynamics. Fieldwork included pumping and slug tests, well installation, groundwater sampling, and geochemical analysis to support subsurface characterization

**Summer Student Fellow** - Woods Hole Oceanographic Institution May 2019 - August 2019
Dept. of Marine Chemistry & Geochemistry - *Coastal Groundwater Geochemistry Lab* Woods Hole, MA

Applied natural radionuclide tracers and mixing models to estimate solute transport driven by groundwater seepage and sediment–water interactions in salt marshes

**NSF-REU Undergraduate Researcher** - Texas A&M University May 2018 - August 2018
Dept. of Civil Engineering; Geology & Geophysics College Station, TX

Characterized water sources and nutrient transport pathways in forested, tropical watersheds using stable isotope partitioning and conservative tracers

**Field & Lab Assistant** University of Maryland, College Park May 2017 - May 2019
Dept. of Geology - *Biogeochemistry Laboratory* College Park, MD

Designed and conducted incubation experiments using urban stream sediments to evaluate ion exchange and sorption behavior under varying salt concentrations

## GRANTS & AWARDS

**Outstanding Teaching Assistant Award - Spring 2023** May 2023

**National Science Foundation Graduate Research Fellowship** August 2020 - August 2025

**UT Austin Recruitment Fellowship** August 2020 - August 2021

**Green Scholarship in Environmental Science & Restoration (UMD)** October 2019

## TECHNICAL STRENGTHS

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| **Programming Languages** | R, MATLAB, Python |
| **Software & Codes** | COMSOL Multiphysics, PFLOTRAN, PHREEQC, CrunchFlow |
| **Technical Expertise** | Pumping test and slug test analyses, finite difference and finite element numerical methods, saturated and unsaturated flow modeling, reactive solute transport modeling, aqueous geochemical data analysis |