

Yichi Du, E.I.T.

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EDUCATION BACKGROUND

- **Ph.D., Civil Engineering (with Geotechnical Engineering Emphasis)** January 2019 – Present
Texas A&M University, College station, TX GPA: 3.625/4
- **M.S. (Thesis), Civil Engineering (with Geotechnical Engineering Emphasis)** August 2017 – December 2018
Texas A&M University, College station, TX GPA: 3.315/4
- **M.S. (Thesis), Civil Engineering (with Geotechnical Engineering Emphasis)** September 2016 – August 2017
University of Florida, Gainesville, FL GPA: 3.86/4
- **B.S., Exploration Engineering** September 2012 - June 2016
China University of Geosciences (Wuhan), China GPA: 84.6%

PATENTS

Utility Model: Modernization well drilling data acquisition monitored control system (Patent NO. CN201520272458.2)

Invention: Electromagnetic measurement while drilling system for wire line core drilling (Patent NO. CN201410313088.2)

RESEARCH EXPERIENCES

Hydro-Mechanical Behavior of Unsaturated Shrink-Swell Clays During Hydration and Shearing December 2020 – Present
Texas A&M University

- The triaxial consolidated drained experiments on initially compacted expansive unsaturated samples are conducted;
- Investigating the shear behavior of this type of soil subjected to wetting under predefined shear stress and confinement conditions;
- The planned experimental campaign will provide critical data for the safe and economical design infrastructure on shrink-swell soils.

Numerical analysis of drying cracks developed under field conditions August 2017 – Present
Texas A&M University

- Using the Mesh Fragmentation Technique (MFT) to model desiccation cracks under natural condition in Canada;
- MFT consists in introducing finite elements with high aspect ratio (HAR-FE) in between the standard (bulk) elements of the mesh;
- A master thesis is finished.

Electromagnetic Measurement While Drilling April 2013 – January 2016
China University of Geosciences (Wuhan)

- Studied how to rapidly and efficiently transmit drilling stratum data to accepting equipment on the ground;
- Designed a drilling tool containing four outer tubes and three inner tubes with 321 Stainless Steels and PEEK so that it could meet strength and sensors transmission requirements;
- Succeed in applying for the laboratory open fund and obtaining national patents in transmission and monitor system.

INTERNSHIP EXPERIENCES

Geotechnical Internship, League city office, Terracon Consultant Inc. May – August 2022

- Learned project lifecycle and took part in client communication, draft project proposal and final report, leading field work and conducting lab testing
- Running slope stability and settlement analysis based on lab test results, giving foundation design consultation to the clients.

Qingdao Metro Line 2 Tunnel Boring Machine Project Department, China Railway 18 Bureau August – September 2015

- Learned TBM design rules and selection methods, and applied them to construction practice;
- Recorded excavation parameters and assisted in daily machine maintenance.

Department of Investigation, Qingdao Geotechnical Investigation & Surveying Research Institute January – February 2015

- Explored geology in part of metro line 2 in Qingdao with researchers;
- Recorded lithology and related properties of core samples at each survey point, analyzed stratum data and rock mechanical properties;
- Drew geological section maps and gave suggestions regarding rock mass classification in metro design.

CAMPUS EXPERIENCES

Graduate Teaching Assistant - Texas A&M University, College Station, TX September 2021 - May 2022

- Being TA coordinator to organize geotechnical engineering lab schedule with professors and lab manager.
- Delivery lab instruction to undergraduate students and grade lab reports.

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Secretary- Texas Geo-Institute Student Chapter

September 2019 - Present

- Preparing agenda for officer general meetings;
- Maintain and update the Geo-Institute webpage;
- Preparing the flyers for Geo-Institute meetings.

President

September 2014 - June 2015

Student government in department of Engineering, China University of Geosciences (Wuhan), China

- Led the student union to win the award of Model Student Union in the year-end appraisal.
- Built the Student Right Protection Platform to collect students' opinions and suggestions effectively both in person and through the internet and write summary of these opinions to find solutions.

Software

Matlab; gINT; Slope/W; Unisettle; GIS; Python; Microsoft office; Jupyter notebook; Plaxis 2D.

FELLOWSHIP

Janet and Jean-Louis Briaud Fellowship, Dr. Don Murff '70 Endowed Fellowship