Ran Gao

Tel: 520-910-9663 **Email**: rangao@utexas.edu

EDUCATION

University of Texas at Austin Fall 2022 – Spring 2024
M.S.E., Environmental and Water Resource Engineering GPA 3.67/4.00
Core Modules: Physical and Chem Treatment, Water pollution chemistry, Hazardous Waste Management, Nanoparticles.

University of Arizona Fall 2018 – Spring 2022
B.S., Major: Environmental Engineering GPA 3.6/4.0
Minor: Mathematic GPA 4.0/4.0
Core Modules: Hydraulic Engineering, Microbiology, Organic & Inorganic Chemistry, Water Pollution Treatment Engineering,

ACADEMIC WORK EXPERIENCE

Laboratory Research – University of Texas at Austin Texas, USA August 2023- Present

- Conduct lab research in the topic of membrane integrity test in large-scale plant, using strontium as a virus indicator.
- Participate in water sample test with Freese and Nicole company at Cypress Water Treatment Facility at Wichita Falls.
- Perform microbial experiments in lab such as plaque assay and virus and bacteria incubation, and use MATLAB to process and graph experimental data.

Teaching Assistant - University of Texas at Austin, Texas, USA January 2023- May 2023

- Guided and supervised undergraduate students in laboratory activities focused on the topic of water quality, energy balances, particles in air, and air pollution, while assisting them in developing a prototype solution for their environmental topic project.
- Conducted office hours and provided MATLAB plotting assistance on student homework and lab report graphs, also addressing questions, and clarifying concepts.
- Evaluated assignments, exams, and lab reports, providing comprehensive feedback to enhance student understanding of environmental engineering science.

Design Project – University of Arizona, Arizona, USA August 2021 – May 2022

- Design, develop and optimize a process to synthesize natural gas into the useful and much less harmful substance, methanol via the bi-reforming of methane followed by a Fisher – Tropsch (FT) synthesis.
- Optimized nickel-based and iron-based catalysts were used to increase the methanol production and make the process more economically sustainable.

Lab Assistance- Beijing Normal University, Beijing, China June 2020 – August 2020

- Accountable for the design and execution of experiments, including using the conventional co-precipitation method, synthesized magnesium/aluminum-modified montmorillonites (Mg/Al-MMT) with different Mg/Al ratios.
- Researched, collaborated on and co-authored research reports, which were subsequently published in Environmental Technology, Taylor& Francis.

AWARDS AND PATENT

Awards:

- May 2021 Academic Year Academic Distinction – University of Arizona
- May 2021 Dean's List – University of Arizona- 2022, 2021
- May 2020 Academic Honorable Mention – University of Arizona
- May 2020 Academic Year Academic Distinction – University of Arizona
- Dec 2019 Dean's List – University of Arizona.

PUBLICATIONS (Second Author)

- **Gao, R**, [Xia Meng, et al.). (2021). "Fabrication and investigation of novel monochloroacetic acid fortified tripolyphosphate−crosslinked chitosan for highly efficient adsorption of uranyl ions from radioactive effluents". *Journal of Hazardous Materials.*

EXTRA ACTIVITIES

- Aug 2023 – Dec 2023Grader for the Elements in Hydraulic Engineering course
- Sep 2022- Dec 2022 Student Dining and Housing Assistant in Jester City Market - UT at Austin
- Apr 2022- May 2022 Volunteer in University of Arizona International Admissions Office - UA
- Dec 2018 –May2022 Membership of The National Society Collegiate Scholars -UA
- Oct 2018 –May 2022 Club Member of UA Badminton -UA

KEY SKILLS AND CERTIFICATIONS

- **Technical Capabilities:** MS Office Suite; Visio; MATLAB; Aspen Plus(Basic);
- **Language Capabilities:** English (Proficient); Mandarin Chinese (Native);
- Personalities: Honest; Self-motivated; Optimism
- High degree of Flexibility and Adaptability – Problem Solving and Prioritization
- Attention to Detail and Precision Knowledge of Environmental Engineering
- Communication: Written and Oral - Analytically Minded and Data Driven