Songjing Yan

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HIGHLIGHT OF QUALIFICATIONS

- Demonstrated problem-solving, time-management, and communication skills
- Strong analytical skills, experimental skills and field experience in site investigation, and assessment
- Solid interdisciplinary ground in chemical engineering, environmental engineering and material science
- Experienced in statistics analysis, geo-spatial analysis and basic modeling

EDUCATION

Texas Tech University, United States
PhD in Chemical Engineering *December 2018*
MS in Chemical Engineering *May 2017*

- **Research focus**: applications and development of passive sampling technology in contaminated sediment management and remediation, especially HOCs contaminant fate and transportation evaluation
- Core courses: fluid transport phenomena, reaction kinetics, thermodynamics, digital computation, process control, environmental chemo-dynamics, spatial analysis and modeling

Tianjin University, China
BSc in Chemical Engineering *June 2013*

- Core courses: chemical reaction engineering, design of experiments and data analysis, process design and evaluation, fluid mechanics, mass and heat transfer, thermodynamics
- Outstanding Graduate of Qiushi Honors College
- Outstanding Thesis Award

WORK AND RESEARCH EXPERIENCE

Apr. 2019—Present **Post-doctoral Research Associate**
University of Baltimore County, Baltimore, MD, United States

- Developing novel functionalized polymeric thin films for equilibrium passive sampling of PFAS compounds in surface and groundwater
- Collaborating with regulators and other labs to design experiments and working on method standardizing and guidance of polymetric passive sampling
- Applications of scientific theory to qualitative data
- Maintaining analytical instruments (GC-MS), including routine maintenance and troubleshooting, and developing new method for different congeners

Aug. 2014—Dec. 2018 **Graduate Research Assistant**
Sediment and Water Research Lab, Texas Tech University, Lubbock, TX, United States

- Designed and constructed passive sampling methods for contaminated site remediation and management, and contaminant fate and transportation evaluation
- Developed field sampling process, including preparation, sampler deployment, retrieval, and sediment samples collection

- Compiled experiment data by statistical analysis, geology analysis, modeling setup and prepared reports

Aug. 2014—May. 2015 Graduate Teaching Assistant

Chemical Engineering Department, Texas Tech University, Lubbock, TX, United States

- Prepared and delivered chemical engineering fundamental lessons
- Supervised students on conducting chemical engineering lab experiments
- Organized routine group study and TA discussion session to answer questions
- Assessing students level of experiments and confidence in their abilities

Jul. 2013—Jun. 2014 Process Engineer

China Research Institute of Daily Chemical Industry, Taiyuan, Shanxi, China

- Worked on research project of polyglycerin propoxylation catalyzation and the project's industrialization
- Ensured quality and compliance standards during the process
- Produced technical reports, performance evaluation, budget statement and cost estimation

Jul. 2010—Jun. 2013 Undergraduate Research Assistant

State Key Laboratory of Chemical Engineering, Tianjin University, China

- Synthesized gold nanoparticles via the reaction of aspartame and chloroauric acid
- Optimized the reaction conditions, such as reactant concentration, temperature and pH
- Characterized and tested the catalytic and electrochemical performance of the gold nanoparticles

SKILLS AND MISCELLANEOUS

- Field work process: proficient in sampler preparation, sample collection and process
- Characterization tools: proficient in GC-TQ, GC-MS, HPLC, and TOC&DOC
- Computer skills: competent user of Microsoft Ofiice Software (Word, PowerPoint, Excel), familiar with Origin, ArcGIS, Matlab, and AutoCAD
- 40-hour OSHA HAZWOPER certification completed with 8-hour refresher
- Languages: English (fluent) and Chinese (native)
- Volunteered at Texas Tech Therapeutic Riding Center, 2017-2018
- Second place in mini Marathon, West Texas Endurance, 2016
- Student ambassador of Tianjin University, 2012-2013
- Monitor of class, 2010-2012
- Student mentor for freshmen in 2010

PUBLICATIONS AND CONFERENCE PRESENTATIONS

- **Songjing Yan**, Magdalena Rakowska and Danny Reible*, "Activated Carbon Demonstration in Hunter's Point Navy Shipyard Sediments: Bioavailability Assessment with *In situ* and *Ex situ* Porewater Measurements", Submitted
- Magdalena Rakowska, **Songjing Yan**, Tariq Hussain and Danny Reible*, "Sampling for PCBs in Columbia Slough Sediment: Activated Carbon Pilot Study Baseline Data". Battle, 2017
- **Songjing Yan**, Magdalena Rakowska, Tariq Hussain and Danny Reible*, "Spatial variations of porewater and bulk sediment concentrations in complex sediment matrices", SETAC, 2016
- **Songjing Yan**, Magdalena Rakowska, and Danny Reible*, " Application of Passive Sampling in Evaluating the Effectiveness of Activated Carbon Amendment in the Field ". SETAC, 2015
- Shufen Wu, **Songjing Yan**, Wei Qi* et al,"Green synthesis of gold nanoparticles using aspartame and their catalytic activity for p-nitrophenol reduction", *Nanoscale Research Letters*,2015