

Qian(Tyra) Zhang

521 West 112 St, New York, NY 10025;
646-891-7231; qz2213@columbia.edu;

EDUCATION

Columbia University, The Fu Foundations School of Engineering and Applied Science	New York, NY
Ph.D. candidate in Earth& Environmental Engineering	Expected May 2018
M.S.	May 2015
University of Oregon, Graduated with Honor	Eugene, OR Dec 2013
B.S. majoring in 1: Environmental Science 2: Environmental Economics	
Capital University of Economics and Business	Beijing, China May 2010
B.S majoring in Finance for two-years	

RESEARCH EXPERIENCE

At Columbia University	New York, NY
Doctoral Thesis Research (funded by Department of Energy), Dept. of Chemical Engineering	-Present
<ul style="list-style-type: none">Strategize my Ph.D. research to optimize a catalytic system's performance for H₂ energy storage electrolyzers and fuel cells applicationsClosed collaborate with scientists in Brookhaven National LabThe publication with first authorship: http://onlinelibrary.wiley.com/doi/10.1002/celec.201600171/fullThree papers with first authorship are currently under journals revision	
Research Assistant, Dept. of Earth and Environmental Engineering	Dec 2014 -Mar 2015
<ul style="list-style-type: none">Analyzed the data collected from the certain bacteria's biological process for Secondary Effluent	
Research Assistant, Dept. of Earth and Environmental Engineering	March 2014 -Aug 2014
<ul style="list-style-type: none">Assisted to Explore fabrications of various catalytic promoters in traditional catalysts for CO oxidation	
At University of Oregon	Eugene, OR
Senior Research and Thesis, Dept. of Environmental Studies	Jan 2013 -Dec 2013
<ul style="list-style-type: none">Investigated the impact of hatchery supplementation programs on aquatic biodiversity in Anqing of China	

PROFESSIONAL EXPERIENCE

Career Education Assistant, Center for Career Education, Columbia University	New York, NY -Present
<ul style="list-style-type: none">Quantify qualitative survey through codingProvide front-line support for scheduling and intake of career counseling sessionsConduct career service related researchAssist with university-wide career fairs, CCE events and on-campus interviews	
Science courses instructor, Double Discovery Center, Columbia University	New York, NY -Present
<ul style="list-style-type: none">Design syllabus and lesson plans for general chemistry I and environmental science I coursesImplement active learning and evidence-based teaching methodology into my classroomteach General Chemistry& Environmental Science courses to pre-college students	
Zumba Group Fitness Instructor, Dodge Fitness Center, Columbia university	New York, NY-Current
<ul style="list-style-type: none">Choreograph and teach Zumba fitness course in 40people capacity studio room	
Environmental Engineer Assistant as a summer intern, Anhui Academy for Environmental Science Research	China Jun 2013-Aug 2013
<ul style="list-style-type: none">Conducted and analyze the data collected from heavily contaminated industryAssisted on drafting on a chemical company's Impact Assessment Report	
Communication Research Assistant, Nanyang Technological University	Singapore, Jan 2012-May 2012
<ul style="list-style-type: none">Conducted audio-interview transcriptionsAssisted multiple communication-oriented research projects in Asian Media Information and Communication Centre	

LEADERSHIP ACTIVITIES

The Director of Public Relations group, CSSA, University of Oregon	Eugene, OR May 2011- Dec 2013
<ul style="list-style-type: none">Drafted and submitted grant proposals for supporting CSSA daily activitiesDesigned and implemented strategies to attract sponsors for CSSA annual eventsRecruited and managed the CSSA PR team membersOversaw and advised PR group's members routine work	

TECHNICAL SKILLS

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- Catalysis Characterization Techniques:** X-ray Photo-electrons spectroscopy (XPS) with capacity of physical vapor deposition (PVD); X-ray Diffraction Spectroscopy (XRD); *In-situ* Infrared spectroscopy (*in-situ* IR); Scanning Electrons Microscope (SEM); Transmission Electrons Microscope (TEM); BET Surface Area Analyzer; Atomic Force Microscope (AFM)
 - Lab Skills:** Lab-scale catalyst Synthesis and Impregnation; Electrochemical Apparatus Operations and Data Collections
 - Applications:** E-view; ArcGIS; Microsoft Office; Origin
 - Language:** English; Mandarin (Fluent)