

Emily Randig, EIT

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Education

Kansas State University , Manhattan, KS	Expected Graduation: May 2022
<i>Master of Science, Water Resources Engineering</i>	GPA: 4.0
California Polytechnic State University, Pomona , Pomona, California	August 2017 - May 2020
<i>Bachelor of Science, Civil Engineering-Environmental Option</i>	GPA: 3.78
Long Beach Community College , Long Beach, California	August 2015-June 2017
	GPA: 3.96

Experience

PACE – Pacific Advanced Civil Engineering	Fountain Valley, CA
<i>Stormwater Intern</i>	May 2019 – August 2020
- Prepared technical reports describing erosion, precipitation, peak discharge events and revised CAD drawings, edited HEC-RAS models, and designed stormwater piping. - Surveyed using the Trimble A128 and Trimble TSC3 and monitored streambank erosion along a 10-mile section of San Juan Creek.	
SPEC Services, INC.	Fountain Valley, CA
<i>CAD Drafter</i>	December 2018 – January 2019
Developed civil and structural drawings for petrochemical projects, coordinated with engineers on revisions, and issued completed work to document control library.	
<i>Receptionist / Administrative Assistant</i>	July 2017 – August 2018
- Edited and organized client contracts and project proposals. - Managed phones, distributed mail, coordinated meetings, and greeted visitors.	

Relevant Academic Experience

Kansas State University	
<i>Graduate Research Assistant</i>	August 2020 - Present
- Conducted weekly monitoring and developed analytical techniques to study a Harmful Algal Bloom (HAB) event at the Milford Gathering Pond in Geary County, KS. - Evaluated the application of Excitation Emission Matrix (EEM) fluorescence spectroscopy to predict algal blooms based on the changes in intensity of organic matter observed. - Worked closely with the Kansas Department of Health and Environment (KDHE), the Kansas Department of Wildlife and Parks (KDWP), and the US Army Corps of Engineers to ensure data collection and analysis aligned with Kansas's HAB research goals.	
<i>Graduate Teaching Assistant</i>	August 2021 – Present
Instructed a class of 25 students in the principles of water resources, hydrology, and hydraulics through lab demonstrations.	
<i>National Science Foundation Rural Resource Resiliency Traineeship (NRT)</i>	August 2020 - Present
- Collaborated with a team of interdisciplinary students, community leaders, and project stakeholders to understand the social and economic barriers to implementing Anaerobic Membrane Bioreactors on confined animal feeding operations in Western Kansas, specifically focusing on water quality improvements. - Utilized systems thinking when analyzing the food, water, energy nexus in rural communities.	
Cal Poly Pomona	
<i>Senior Capstone Project Manager</i>	August 2019 – May 2020
- Managed a team of 15 students to design and present a solution to improve water quality in the Salton Sea. - Completed a hydrologic analysis of the Alamo River including sediment transport using HEC-RAS. - Wrote an Environmental Impact Report (EIR) for the proposed solution.	
<i>Undergraduate Research Assistant</i>	March 2019 – September 2019
- Assisted graduate student in potable water sampling and testing. - Gained experience following lab procedures, researching testing methods, and using lab equipment.	

Organizations and Affiliations

Kansas State University, Water Environment Federation

President

January 2021-January 2022

- Doubled the KSU WEF student chapter membership and expanded member opportunities for personal, academic, and professional growth through guest lectures and presentations.

Cal Poly Pomona, California Water Environment Association – American Water Works Association

Vice President

May 2019 – May 2020

- Organized guest speakers for biweekly club meetings and arranged technical tours at local water treatment and wastewater treatment plants for student members.

Treasurer

May 2018 – May 2019

- Increased club budget through leading new fundraising campaigns and worked with Associated Student Incorporated (ASI) to set up online donation page.
- Prepared the yearly budget and managed disbursements of funds for club expenses.

Cal Poly Pomona, Chi Epsilon – Civil Engineering Honor Society

Editor of Transit

May 2019 – May 2020

- Wrote Annual Report to the Chi Epsilon Pacific District detailing activities and awards of the club members.

American Society of Civil Engineers

Pacific Southwest Conference (PSWC) Environmental Team Project Manager

November 2018 – June 2019

- Lead a team of 10 students who researched, designed, tested, and constructed a cost-effective, gravity fed water filtration system for a given set of contaminants.
- Achieved first place for the written report and fourth place overall.

Certifications

- Civil Engineer in Training (EIT), NCEES
- Envision Sustainability Professional (ENV-SP), Institute for Sustainable Infrastructure

Awards and Achievements

- KSU Civil Matters Alumni Magazine Featured Graduate Student, 2021
- American Water Works Association (AWWA), Gannett Fleming Scholarship, 2020
- CA-NV AWWA Student Spotlight, 2020
- KS – AWWA, Solution H2O Student Feature, 2020
- Kenneth K. Damgaard Scholarship Recipient, 2020

Relevant Completed Course Work

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| • Hydraulics of Open Channels | • Advanced Hydrology |
| • Advanced Wastewater Treatment | • Groundwater Flow Systems |
| • Ecological Engineering Design | • Environmental and Ecological Risk Assessment |
| • Low Impact Development in Water Resources | • Environmental Remediation |
| • Sustainable Buildings and Infrastructure | • Numerical and Analytical Techniques for Engineers |

Other Skills

- Microsoft Office Suite, AutoCAD, HEC-RAS, HEC-6, MicroStation, HEC-HMS, EPA-SWMM, ArcGIS, Bluebeam