

Rachel Williams

E-mail: rcw23@buffalo.edu Phone: (516) 996-0827

Education

- **University at Buffalo, The State University of New York** Anticipated: Spring 2024
 - Bachelor of Science: Civil Engineering
 - University at Buffalo Honors College
 - Minor in Spanish
 - GPA: 3.930/4.0

Job Experience

- **Transportation Structures Intern, TranSystems (06/2022 – 08/2022)**
 - Addressed redlines in MicroStation for multiple bridge expansion and retaining wall project plans.
 - Calculated quantities for retaining wall projects and taught other interns how to complete Caltrans quantity spreadsheets.
- **Tutor, University at Buffalo School of Engineering and Applied Sciences (09/2021 – Present)**
 - Tutored calculus 1, precalculus, and physics 1 classes and assisted professors with answering student questions.
- **Merchandiser, Hopewell Nursery (05/2021 – 08/2021)**
 - Organized and maintained plants and assisted customers while working both independently and on a team.
- **Data Analyst Trainee, IV Matters Consulting (06/2020 – 08/2020)**
 - Created market research data spreadsheets in Microsoft Excel to analyze the market potential of various CAR-T cell therapy treatments.

Skills

- Competent in MicroStation, Autodesk Civil 3D, Autodesk Revit, and MATLAB
- Intermediate Proficiency in Spanish (reading, writing, listening, and speaking)

Projects

- **American Society of Civil Engineers, University at Buffalo Student Chapter (09/2020 – Present)**
 - Steel Bridge Team
 - Worked on the design and fabrication of a steel bridge. Participated on the build team which aims to build the bridge as accurately and quickly as possible so it can withstand load tests at a national competition. Placed first in 2021 & 2022 regional competitions and fifth and sixth in 2021 & 2022 national competitions respectively.
 - Vice President
 - Planned club general body meetings, events with local and national companies, and joint events with the Buffalo ASCE Professional Section.
 - Social Chair
 - Organized events for the club to encourage camaraderie among members and encourage new members to join.
 - Historian
 - Documented meetings and events. Created an annual report PowerPoint and spreadsheet summarizing the goals and achievements of the club. Won the ASCE New York State Council Outstanding Student Chapter Award.
- **Undergraduate Research Assistant, University at Buffalo Structural Engineering and Earthquake Simulation Laboratory (04/2022 – Present)**
 - Mixed and cast specimens of Ultra-High Performance Concrete (UHPC) and prepared and conducted compression and tension tests on the specimens to analyze concrete strength.

Awards

- **University at Buffalo Pride of New York Scholarship**
- **University at Buffalo School of Engineering and Applied Sciences Women's Empowerment Scholarship**
- **University at Buffalo School of Engineering and Applied Sciences First Year Engineering Design Team Award**
 - Designed and constructed a small-scale wind turbine with a group and tested the electrical output.
 - Won the Design Team Award for innovative ideas in creating curved turbine blades, building a wind tunnel, using bearings on the turbine axle, and creating a wind measurement flag.
- **Spark Program Digital Badge**
 - Learned how to network, use personal strengths, and seek involvement in extracurricular activities. Badge shows proficiency in career management and oral/written communication skills.
- **Honors Colloquium Digital Badge**
 - Learned about the refugee population and education system of Buffalo, NY through discussions in class, guest speakers, and research projects. Developed leadership skills, intercultural fluency, and communication skills.