

# Emily Durcan

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## EDUCATION

### Rensselaer Polytechnic Institute

Troy, New York

*Dean's Honor List- GPA 3.3*

May 2019

- Bachelor of Science in Civil Engineering with a minor in Environmental Engineering
- Pursuing a Structural Master's Degree at RPI starting Fall 2019

## WORK EXPERIENCE

### Delaware Engineering, D.P.C.

Albany, New York

*Structural & Environmental Planning & Design Intern*

May 2018—August 2018

- Draft building plans with Revit, AutoCAD, and AutoCAD Map 3D, size beams, columns and footings, write engineering reports, design septic systems, perform site investigations and percolation testing

### Atlantic Testing Laboratories

Clifton Park, New York

*Engineering Co-op*

May 2017—December 2017

- Monitor projects to abide by code rules, perform air sampling, concrete and soil testing to meet project specifications, and inspect work sites in the field to ensure proper techniques

### Rensselaer Polytechnic Institute

Troy, New York

*Undergraduate Teaching Assistant*

August 2016—present

- Aid the professor and students in class to learn the basics of engineering analysis. Work one-on-one with students to guide them on class assignments, homework, and excite them about engineering problems

## RESEARCH EXPERIENCE

### Design Optimization

September 2018—present

- Use the cloud computing software Fusion 360 to perform proof of concept and design optimization by creating 3D printed models and structurally testing them

### Water Filtration

December 2016—August 2017

- Test water filtration systems for affordable fresh water distribution using slow sand filtration and UV light disinfection techniques to then be implemented in clean water scarce communities

## SKILLS

- Program Experience: Revit, AutoCAD, AutoCAD Civil 3D, Fusion 360, SAP2000, MATLAB, and Java
- NYSDOL Project Monitoring and Air Sampling; Nuclear Gauge Operator; OSHA 10-hour Safety & Health; ASTM Concrete Field Testing; ACI Concrete Sampling Certifications

## LEADERSHIP/ACTIVITIES

### Habitat for Humanity

August 2016—present

*VP of Finance & Secretary*

- Organize events, prepare meeting materials, send emails and meeting minutes to club members, handle finances by tracking expenses and allocating money, and file the annual budget request documents

### Mohawk Hudson Humane Society

June 2018—present

*Dog Care Volunteer*

- Walk and socialize with the dogs, speak to potential adopters, sort donations of canned food and treats, wash and fold laundry, and help with any other daily activities in the shelter

### Road to Rensselaer Student Liaison

December 2016—present

- Speak and present to high school students interested in attending RPI on behalf of Rensselaer admissions about academic opportunities available and personal experiences as well as answer any questions

## HONORS/AWARDS

### ASWM, AGC, NETTCP & Western Digital Scholar

June 2018

- Awards for strong academics, volunteerism, and involvement in the STEM field