

SARAH NICHOLSON

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I am a fourth-year mechanical engineering student at Ryerson University currently working as a freelance graphic designer. My experiences in teaching roles have developed my ability to bring emotional intelligence to leadership and teams, while also delivering accurate technical information.

EXPERIENCE

Freelance Graphic Designer Self Employed

May, 2016 - Present

- Created & managed websites for businesses
- Developed printed ads and social media marketing
- Developed logos and graphics
- Increased small business website traffic to 900+ views a week

Teaching Assistant Ryerson University – Engineering Graphical Communications

Jan, 2017 - May, 2017

- Taught weekly two-hour lab classes for first year University course on Solidworks & engineering drafting
- Marked assignments and tests
- Provided student support through weekly office hour

Design Engineer Ryerson University – Vibration Absorber Design Project

Jan, 2017 - May, 2017

- Created a MATLAB iteration program to achieve a payload vibration amplitude under 0.05 mm for steady – state vibration
- Designed a vibration absorber to be used with a drone to deliver specified packages
- Improved the design process by simplifying the project through computer programs to maximize for multiple variables
- Achieved an overall course grade of A- (3.675 GPA)

HVAC Engineer Ryerson University – Vapor Power Plant Design Project

Sept, 2015 - Dec, 2015

- Designed a vapor power plant given design constraints
- Maximized within economic, environmental and performance categories
- Developed an Excel program to perform thermodynamic calculations to quantify the outcome of adding plant processes (such as additional turbines and feed water heaters)
- Achieved a system thermal efficiency of 32% with a geothermal heating source
- Overall course grade of A- (3.675 GPA)

EXTRA-CURRICULAR

- Design Member** Ryerson University – Formula Racing Team
Sept, 2016 - Dec, 2017
- Worked with a team to begin the design of a hub cap cover to protect from wear and particulates
 - Developed car livery designs using graphic design and Solidworks skill
- Mechanical Executive** Ryerson University – Women in Engineering
Sept, 2014 - May, 2015
- Attended biweekly meetings with other executives
 - Led group discussions and facilitated extracurricular activities
 - Acted as a student ambassador to conferences and open houses
- First Year Engineering Midterm Prep Tutor** Ryerson University – Student Residence
Sept, 2014 - Dec, 2014
- Volunteered as a tutor for weekly 3 hour sessions to prepare first year engineering students for their midterms
 - Provided insight on all courses & solved technical problems on spot

EDUCATION

- Bachelor of Mechanical Engineering** Ryerson University
Sept, 2013 - Present
- CGPA 3.59
 - Dean's List 2014 - 2015, 2015 - 2016 & 2016 - 2017

AWARDS & ACHIEVEMENTS

- RBC Student's Leading Change Winner** Recipient of a \$10 000 scholarship for essay written about ways the future can be changed by including more women to join STEM.
July, 2016
- Aileen Amber Clark Award** Demonstrated academic performance and a commitment to being engaged as a women in engineering.
October, 2015
- Secondary School Valedictorian** Chosen by faculty and peers to give the graduating address for Secondary School graduation.
June, 2013

SKILLS

- Technical Design** Solidworks - MATLAB - EPANET - C+
Adobe Photoshop - Microsoft Office Suite - HTML