ELIZABETH O'SULLIVAN

3B Materials and Nanosciences
The University of Waterloo

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SKILLS

Software
C++
html
Python
SQL

Hardware
Cryogenics
Soldering and wiring
Vacuum systems
Machining

Other
Linux
Github
Labview
LaTeX
KiCad (PCB Design)

ACHIEVEMENTS

2017
Elected as Science
Councillor for FEDS

Elected as Speaker
for FEDS Council

2016
TRIUMF Student
Symposium Winner

2015
NSERC Undergraduate
Student Research Award

2014
Merit Scholarship
(Entrance Scholarship)

2017, 2016, 2015, 2014
Dean's Honours List,
Faculty of Science,
University of Waterloo

EXPERIENCE

Validus Research Inc.

May 2017 - December 2017

I was responsible for taking databases containing all of the coverage information from an insurer and modelling the data to find the probability, and the potential dollar value of damage associated with, a large scale natural disaster.
Ran analyses to figure out the effect the updated USA fault lines had to the losses in specific regions of the USA as the result of an earthquake.

The Gamma Ray Spectroscopy Group at ISAC, TRUIMF

January 2016 - May 2016

September 2016 - December 2016

Worked on the Spectrometer for Internal Conversion Electrons (SPICE) experiment.
Designed and built a photodiode array including testing components, optimizing the design, modifying simulations, designing the PCB to mount and wire components.
Wrote scripts in C++ to analyze data.
Wrote scripts in Python to control and monitor the vitals of the experiment.

Sweat Free Apparel, Velocity Start-Up

June 2015-August 2016

Decided on necessary material properties for the product
Explained and recorded findings clearly for team members without science background

Kycia Group, The Faculty of Physics, The University of Waterloo

May 2015 - August 2015

Worked in a low temperature condensed matter physics research group developing a program in Labview to help run a cryostat, fixing and re-installing a helium liquefier
Created methods to test individual components, machined (with a laithe and mill) and brazed new parts, tested to confirm previous problem had been correctly diagnosed and solved

PROJECTS

Website Design

September 2017 - December 2017

Designed and built my own website using HTML, CSS, and JS.

Co-Founder (and Exec) of MNS Society:

March 2017 - Present

I co-founded the MNS Society to ensure there would always be a place where future MNS students could find academic support, friends, and fun lab events.

Councillor and Speaker:

May 2017 - Present

As Speaker I am responsible for creating the agenda, organizing our meetings, facilitating and maintaining order during meetings.