



uwEnergyHacks 2019

Hacker package

University of Waterloo Energy Network
(UWEN)

Welcome

On behalf of the University of Waterloo and the UWEN, we'd like to officially welcome you all to the UW's first energy- and sustainability-focused hackathon!

Over the next 24 hours, you will have the opportunity to learn about some of the most pressing issues facing the environment and develop solutions to fascinating real-world problems. We invite you to attend as many of our workshops as you can develop your skills beyond the scope and limitations that the hackathon provides!

If you have any questions or comments for us before or during the hackathon, please feel free to reach out to any of us over Slack. We'll also be present for the entire event and would love to get to know each and every one of you, so please come say hello or let us know if you need something 😊.

We are so excited to have you attend, and hope you learn something valuable that you can continue to explore past the doors of STC.

Sincerely,

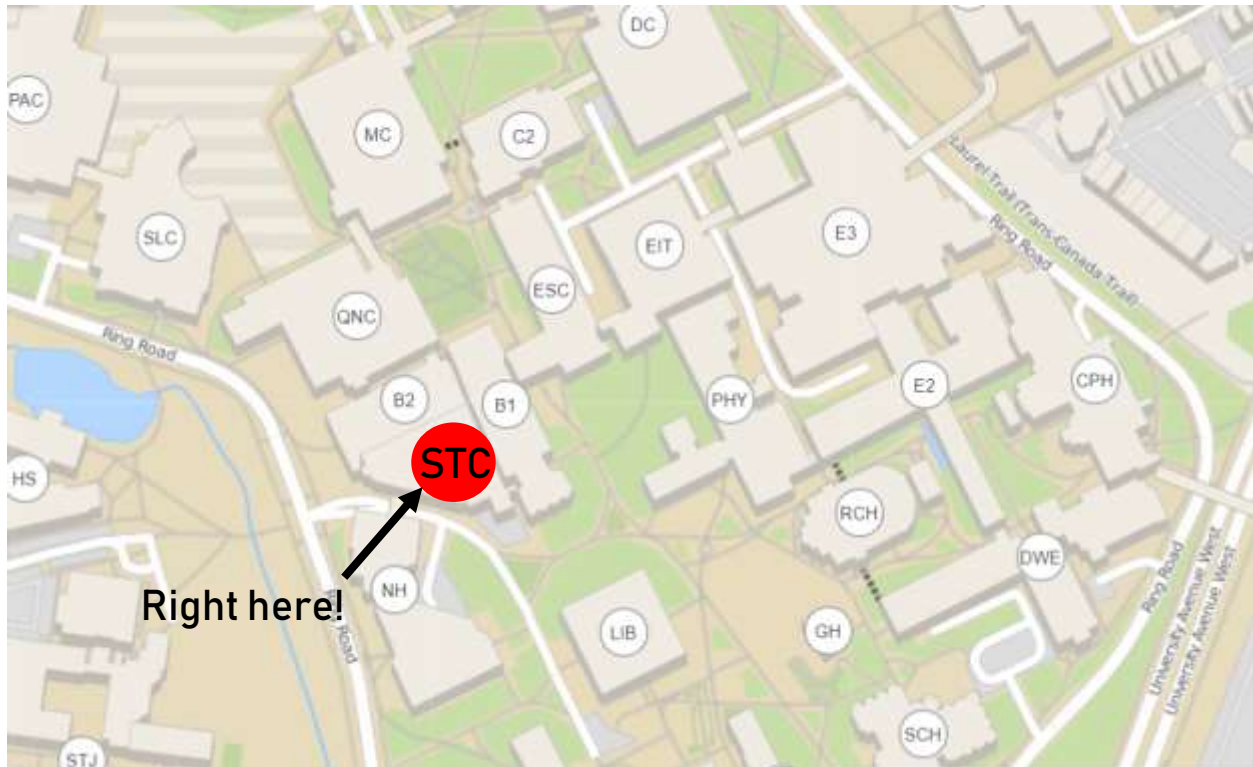
Cam, Emma and Jamie

Schedule

Time	Saturday 06/01
8am	
	8:30 - Hackers check-in @ STC Basement
9am	
10am	Opening Ceremony (10:00-10:45am) 10:45 - Hacking begins!
11am	
12pm	Lunch (12:00-1:00pm)
1pm	1:15 - PhosphoPOWER <i>The Business Case for Sustainability</i>
2 pm	UW Blueprint <i>Tech for Social Good</i> 2:45 - Chris Lamond <i>Why Renewables are the Future</i>
3 pm	
	3:30 - Laurentiu Anton <i>Powering Off Grid Demand</i>
4 pm	4:15 - PhosphoPOWER <i>Why Renewables Will Never Work Without Batteries</i>
5 pm	Starterhacks <i>Pitching Workshop</i> 5:45 - Green Party <i>Hacking Climate Denial</i>
6 pm	
7 pm	Dinner!

8 pm	8:30 – FossilFree UW <i>Divestment 101</i>
9pm	9:15 – UW Campus Compost <i>DIY Toothpaste Workshop</i>
10pm	
11pm	
Sunday 06/02	
12am	Midnight snack 😊
1am	
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7am	
8am	Breakfast 😊
	8:30 – Hacking Ends (PROJECTS DUE ON DEVPOST)
9am	9:15-11 Solution Pitches
10am	
11am	
	11:30 – Closing Ceremony + Prizes
12pm	
1pm	

Map of Campus



- ➔ The hackathon will take place in the basement of STC
- ➔ Parking is available at LOT D (right beside STC) for \$5/day

Problem Questions

1. Measuring & Incentivizing Corporate Sustainability

Sustainability and corporate social responsibility is becoming increasingly important as consumers have been tending to support brands that align with their values. Effectively using emerging technologies, big data analytics and AI are at the forefront of helping to smooth this process, and making it possible for finance and sustainability to work together.

How can we better measure sustainability importance in the private sector?

2. Data for Energy Savings (Presented by the BEIC)

Large buildings, whether residential, commercial, institutional, or industrial, consume large amounts of energy for lighting, space heating and cooling, water heating, and motors for large equipment such as elevators.

In fact, in cities such as Toronto, nearly half of the city's GHG emissions come from energy consumption in buildings (mostly natural gas used for heating space and hot water).

How can we take full advantage of wireless sensors and data analysis to drive energy and operational savings in buildings?

3. UW Sustainability

The University of Waterloo has set a goal to become a carbon-neutral campus by 2050. The Sustainability Action Plan outlines our goals.

https://uwaterloo.ca/sustainability/sites/ca.sustainability/files/uploads/files/environmental_sustainability_strategy_accessible.pdf

What technological/social actions could we take to reach this goal?

Submission Instructions

- Please submit your project to:
<https://uwenergyhacks.devpost.com/>
- Must be submitted by 8:30 AM June 2nd!

WiFi Instructions

IF YOU DO NOT HAVE ACCESS TO EDUROAM:

- 1) Connect to the network “uw-wifi-setup-no-encryption”
- 2) Follow the link here:
<https://uwaterloo.teamdynamix.com/TDClient/KB/ArticleDet?ID=70250#guest>
- 3) Navigate to the “How to configure access for individual guests” instructions page and follow the instructions.
- 4) If you cannot get access using this method, please find someone in an Organizer T-Shirt and they will be happy to assist you.

**** Please note:* The wifi access will expire after 24 hours and you will have to reconnect using this process again. This may happen during the hours you wish to submit so account for and remember this.

If you have eduroam, you should be able to connect and use it as normal!

API Resources

Balsamiq

- 90 Day free [cloud](#) trial, use the following code: BQJUAPYGZ071119
Instructions: <https://balsamiq.com/wireframes/cloud/sales/promo/>

Digital Ocean

- \$100 in credit, use the following link: do.co/studenthackathon

MLH

- Access to a variety of different resources: hack.mlh.io/software

Powered by:

