

Robert Knowles

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EDUCATION

University of Waterloo
Bachelors of Computer Science

Class of 2025

- └ **GPA: 3.96.** Awarded the Presidents Scholarship of Distinction. Took classes in algorithm development, functional programming, honours calculus and honours algebra.

EXPERIENCE

World Affairs Conference // Head of Technology 2016-2020

- └ Developed an online registration site with **Javascript and Firebase**. It was used to register over **600 highschool/university students** annually from all across the GTA.
- └ Created the scheduling software in **C++**, designed and organized a design sprint of 50 students, and managed a team of over 10 developers to improve the organization's site.

Toronto Hacker Club // Organizer and Registrar 2017

- └ Organized the largest high school hackathon in North America (**THacks 2**), which drew over **350 participants**. Drafted the meal contracts, safety plans, and contributed to the website.
- └ Helped promote stem education within the GTA by organizing multiple workshops.

PROJECTS

UofTHacks VII // CredID 2020

- └ Built a web application that uses computer vision to create digital identities (verified on the **Ethereum Blockchain**) for the 1.7 billion people without an identity, so they can bank online.
- └ Made using **AWS Rekognition/S3, Node, Express, JS**. Won: **Best Use of Tech for Good**.

Oxford Hacks // Safeway (safeways.space) 2020

- └ Used traffic histograms and routing software to generate the safest path (time of day and route) in order to travel on public transit during the coronavirus pandemic.
- └ Made using **HERE APIs, Node, Express, JS**. Won: **Best Use of Here Technologie's APIs**

Execute Hacks // CovAlert 2020

- └ Designed a web application and a machine learning model (**Keras, Tensorflow.js**), which used a camera on glasses to return if you were looking at someone with Covid-19 symptoms.

SKILLS

Languages // C, C++, Python, Java, Javascript, (less) R, (less) Matlab
Frameworks // Node/Express, AWS, Firebase, REST, Django
Other // Git, Arduino, MPI, OpenMP, NLTK

AWARDS

Hackathon Prizes //

NW Hacks	(1x Winner)	2020
Oxford Hacks	(1x Winner)	2020
UofT Hacks 7	(2x Winner)	2020
JamHacks 2	(1x Winner)	2018

Coding Competitions //

ECOO Provincial Finalist	2020
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Sport Competitions //

OFSAA Gold (Swim)	2018
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