

## Work Experience

### Software Tester and Documentation Specialist

July - August 2020

Centre for Community Mapping

- Co-managed the automated testing suite for the company's PHP code base.
- Created documentation for the customer API, increasing customer efficiency and accuracy.
- Refined the automated testing system of the project, adding many major improvements.
- Familiarized myself with the WIDE toolkit of software services developed at the UofW.

### Developer

October - January 2020

Centre for Community Mapping

- Created a customer data application in VBA to enable customers to transfer their data from excel to the COMAP database.
- Developed a similar application in Google Sheets using the project's HTTP API.
- Tested and used the project's API to help implement a data browser application.

### High School Leader

July - August 2018 & 2019

Engineering Science Quest

- Supervised a full-time tech-based camp for grade five and six students.
- Taught various technologies including GIMP and Arduino.
- Rewrote the Arduino code for one of the activities involving an LCD.
- Fixed hundreds of soldered circuits over the summer.
- Worked in a team with two other university students.
- Managed the training of many other high school leaders.

## ★ Achievements and Projects

### Hack The North 2020++

January 2021

- Created an end-to-end encrypted file storage application with Next.js and Flask.
- Integrated the application with Sia, a blockchain-powered distributed storage network.
- Implemented encryption in JavaScript using industry-standard cryptography.
- Designed a REST API to communicate with the backend.

### RAMP Covid Form

November 2020

- Built a COVID-19 tracing form and hosted it on a website for RAMP, an automation company.
- Created a form frontend in HTML using Google's principles of Material Design.
- Setup a PostgreSQL database and secured remote access to the database for the client.

### Supermoms Website Competition

June 2020

- Winner of a website-building competition for a small company, winning out against a handful of university-level teams.
- Created a fully-functional website in both English and Simplified Chinese in several weeks, with client revisions and modifications.
- Integrated the website with Stripe to provide a complete online payment system.

### James Robertson Memorial Programming Competition

February 2020

- Won first-place prize in an AI Canadian programming competition in Smalltalk.
- Wrote several different bot AIs in Smalltalk across 5 rounds.
- Co-managed the development with two others to defeat 30 other top teams.

### Canadian Computing Olympiad

May 2020

- Placed in the top 2% of high school programmers in Canada in the Canadian Computing Competition three years in a row.
- Invited to an exclusive programming competition for the top 1% of high school programmers in Canada.

### Computer Science Club

June 2018 - June 2020

- Built a complete website for my school's Computer Science Club, featuring an attendance and authentication system.
- Wrote and posted several lessons on introductory computer science on the website.
- Led the club for 2 years, teaching over 50 students for over 100 hours.
- Wrote a sandbox in C/C++, working closely with the linux kernel to run arbitrary code securely.

### DMOJ: Modern Online Judge

January 2020 - Present

- Set more than three contests on the online programming platform.
- Tested and created test data for many different problems.
- Moderated the platform, including approving problems, moderating users and reviewing MOSS to catch cheaters.

# Keenan Gugeler

Developer

 kgugeler@uwaterloo.ca

 519-778-9739

 github.com/Riolku

## Proficient In:

- Python 5 years
- C/C++ 4 years
- Flask 3 years
- NGINX 3 years
- Git 3 years
- PostgreSQL 3 years
- Linux 3 years
- Linux Kernel 2 years

## Experienced In:

- HTML/CSS 3 years
- Material Design 2 years
- Java 1 year
- PHP 1 year
- VBA 1 year

## Knowledge Of:

- C#
- Angular
- Django
- React

## Education

### University of Waterloo

Honours Math  
September 2020 - Present

### Waterloo Collegiate Institute

High School  
September 2016 - June 2020

- Achieved 97% in my grade 12 CS Course