RYAN **KELSEY**

(+1) (519) 635-6042 | [rkelsey@uoguelph.ca](mailto:rkelsey@uoguelph.ca) | [www.ryankelsey.com](http://www.ryankelsey.com/) | github.com/[rkzill](https://github.com/rkzill)

# Skills

**Languages** Python, C, PHP, HTML5/CSS3, JavaScript, Java, MySQL

**Tools** Firebase, Docker, Git, Bash, MS apps (excel, word, etc.), LaTeX, Visual Studio code.

**Frameworks** NodeJS, JUnit, bootstrap, XAMMP, Gradle.

**Soft Skills** Problem solving, excellent communication skills, time management, ability to work well under pressure.

# Work Experience

**Ontario Soil and Crop Improvement Association** *Guelph, ON*

**Full Stack Web Developer** *April. 2022 ‑ Aug. 2022*

* Utilized HTML5, PHP, CSS3, SQL, and JS to create or optimize several components of OSCIA’s website
* Developed web applications to automate day‑to‑day tasks encountered by coworkers – assisted the training of staff on the use of said applications.
* Worked with REST APIs for micro‑services integrating valuable external information into the database.
* Created a new feedback form, vastly improved user registration, and enhanced existing event creation forms with new abilities.
* Frequently used SQL in areas of the website for the storage and querying of user data.

**IT Web Developer** *Jan. 2022 ‑ April. 2022*

* Debugged and tested various aspects of the website and database.
* Brainstormed, implemented, tested, and released new features.
* Worked alongside graphic designers in a site redesign for a more visually appealing front‑end (can be seen at [ontariosoilcrop.org)](http://www.ontariosoilcrop.org/).
* Used analysis tools such as Google Lighthouse to improve page load speeds.

# Education

**University of Guelph** *ON, Canada*

**Bachelor of Computer Engineering** *Sept. 2019 ‑ April. 2024*

* Dean’s Honours list recipient.
* Coursework focused on: Software development and integration, systems design, re‑configurable computing, operating systems.

# Projects

**Home Intruder System** *uC/OS‑III* • Real‑time home intruder system developed with the uC/OS‑III kernel. Utilized motion sensor and camera modules along with a STM32 development board.

**Database server with GUI** *JS, HTML, CSS, SQL*

* Created a front‑end and back‑end web server with GUI and user databases for the storing/manipulation of data.

**Employer/Student Database** *mySQL* • Personal database storing employer and employee COOP job information, from University of Guelph and University of Waterloo ‑ Used for screening potential employers.

**Toy car with crash avoidance** *C, Arduino*

* Bluetooth controller toy car with basic crash avoidance system.

**XML to GPX parser** *C, JS* • Parser that takes in any valid XML tree and converts it to a valid GPX tree, which then can be read and interpreted by a user. Includes all functionality of any standard GPX document.

**Basic CPU** *VHDL, FPGA* • Developed a rudimentary CPU with VHDL and a field programmable gate array. CPU utilized parallel processing to achieve arithmetic and logic operations on set(s) of data.