

# RYAN KELSEY

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## Skills

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<b>Languages</b>	Python, C, PHP, HTML5/CSS3, JavaScript, Java, MySQL
<b>Tools</b>	Firebase, Docker, Git, Bash, MS apps (excel, word, etc.), LaTeX, Visual Studio code.
<b>Frameworks</b>	NodeJS, JUnit, bootstrap, XAMMP, Gradle.
<b>Soft Skills</b>	Problem solving, excellent communication skills, time management, ability to work well under pressure.

## Work Experience

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### 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.
- Assisted with the release of new features and various IT operations.
- 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://ontariosoilcrop.org)).
- Used analysis tools such as Google Lighthouse to improve page load speeds.

## Education

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### 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

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#### 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.