# Lucas Harvey

Software Engineering at University of Waterloo

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## 🛠 SKILLS

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|---|---|
| **Programming Languages:** | Python, R, C, JavaScript, HTML, CSS, PHP, MySQL, Swift, Objective-C, C, Shell |
| **Tools and Frameworks:** | R Studio, Git, XCode, React.js, Apache |
| **Languages:** | Fluent in English and French |

## 💼 WORK EXPERIENCE

**IntelliSports**
intellisports.net
Spring 2018

**Research Intern**

*R, R Studio, Objective-C, XCode*

- Explored the physics behind the sport of curling for the development of a performance-based **mobile application**
- Automated the data analysis of large data sets of gyroscope, accelerometer and magnetometer readings using linear regression in **R Studio**
- Discovered new findings regarding the motion of the curling stone never observed in the research community

**Nexchange**
nexchange.ca
2017-2018

**Lead Developer and Founder**

*JavaScript, HTML, CSS, PHP, MySQL*

- Founded a web-based service that supports students with learning difficulties and saves an average of **15 hours per week** of manual labour
- Developed a customized front-end experience using **JavaScript** and **HTML**
- Built a back-end in **PHP** consisting of **over 30 endpoints** interacting with a **MySQL** database
- Implemented secure authentication using **JSON Web Tokens** from scratch
- Created a mobile-friendly user interface using dynamic **CSS**

## </> PROJECTS

**VisionLock**
Fall 2018

*Python, OpenCV, Dlib*

- Developed a home security system capable of performing **facial recognition**, unlocking a door and greeting the resident with text to speech conversion

**CLIMotion**
Hack the North
2018

*JavaScript, Shell*

- Created the user interface for a project involving **computer vision** which allows users to interact with the command line using physical gestures

**GraphGEN**
Spring 2017

*JavaScript, HTML, CSS*

- Developed a web-based mathematical graphing application capable of plotting points, drawing functions and determining the best linear fit for a given data set

## 🎓 EDUCATION

**Bachelor's of Software Engineering**
2018 - Present

**University of Waterloo**
3.95 GPA
President's Scholarship of Distinction

**Diploma of College Studies**
2016-2018

**John Abbott College**
R Score of 37.5 and Dean's List Recipient (Top 0.5% of school)