

Lucas Harvey

Software Engineering at the University of Waterloo

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SKILLS

Programming Languages: SQL, PHP, Objective-C, Javascript, HTML, CSS, C++, C, Swift, R
Tools and Frameworks: XCode, MySQL, Git, React Native, Expo, React.js, R Studio

WORK EXPERIENCE

- IntelliSports**
intellisports.ca
Summer 2019
Full Stack Developer Intern
Objective-C, XCode, PHP, MySQL
 - Responsible for end-to-end development of a leveling up system to incentivize long-term user engagement through gamification.
 - Redesigned main component of the app for an improved user experience, resulting in a **30x** increase in feature use.
 - Decreased leaderboard load time by **500%** by optimizing SQL queries and implementing infinite scrolling for dynamic data.
- IntelliSports**
intellisports.ca
Spring 2018
Research Intern
Objective-C, XCode, R, R Studio
 - Automated analysis of large data sets of sensor readings using linear regression in R Studio.
 - Explored the physics behind the sport of curling for the development of a performance-based mobile application.
 - Discovered new findings regarding the motion of the curling stone never observed in the research community.

PROJECTS

- PartyFinder**
partyfinder.ca
Summer 2019
React Native, Expo, Firebase
 - Built crowdsourced mobile app to help students find events happening near them with live ratings.
 - Utilized various Google APIs to propose relevant address suggestions and locate events on a map.
 - Led a team of programmers, designers and marketers and amassed **over 1000 downloads** in two weeks.
- VisionLock**
Fall 2018
Python, OpenCV, Dlib, Raspberry Pi
 - Developed home security system capable of unlocking a door with a servo motor and greeting the resident by name with text to speech conversion.
 - Leveraged OpenCV, Dlib and Haar Cascades to perform facial recognition efficiently within the constraint of limited computational resources onboard the Raspberry Pi.
- Nexchange**
nexchange.ca
2017 - 2018
JavaScript, HTML, CSS, PHP, MySQL
 - Founded web-based service that supports students with learning difficulties by providing them with class notes and saves an average of 15 hours per week of manual labour.
 - Implemented secure authentication from scratch using custom JSON Web Tokens.
 - Crafted mobile-friendly user interface using responsive CSS.
 - Received \$3,000 in entrepreneurship prizes and won the regional level of the OSEntrepreneur competition.

EDUCATION

- Bachelor's of Software Engineering**
2018 - Present
University of Waterloo
90.67% Cumulative Average
Dean's Honours List Recipient (2x)