

# Hrithvik Alex

University of Waterloo Software Engineering

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## SKILLS

**Programming Languages:** C, C++, Swift, Python, JavaScript, HTML, CSS, Matlab

**Frameworks:** Express, Node.js, XCode, MongoDB, CoreML, React, Keras

## PROJECTS

**Fashionably**  
(*Starterhacks Winner*)  
January 2019

- Created a Swift iOS app using **CoreML**, UIKit, and Cocoapods that reviewed user selected pictures of their wardrobe and classified them according to weather and style
- Implemented a **Keras** Convoluted Neural Network to classify pictures by clothing type at an accuracy of **89%**

**YelpCamp**  
November - December 2018

- Used the **Express** framework to create a **Node.js** web application which allows users to upload, rate, and discuss various camping site locations around the world.
- Implemented user authentication, a comments and reviews system, and user upload through **HTTP** requests
- Managed user and campsite data using **MongoDB** and Mongoose and styled with HTML/CSS

**Virtual Keyboard**  
September - November 2018

- Created a responsive touch keyboard that improved typing quality for arthritis patients
- Designed a **React** UI displayed on an LCD Screen and outputted key-strokes using the PyAutoGUI **Python** library
- Used Arduino Uno to implement haptic feedback on key press through wired motors, written in **C**

## WORK EXPERIENCE

**Programming Mentor**  
Jan - May 2018

### Coding Buddies

- Taught middle school children at Glenhaven public school programming fundamentals in **Python** such as I/O, conditionals, loops, etc.
- Created weekly programming lesson plans to teach children in an efficient manner that increased weekly content by **30%**

**Lifeguard**  
June - September 2017

### Pro Recreation Management

- Upheld the safety of pool patrons by enforcing proper pool rules and protocol for patrons and performing emergency **first aid** when necessary
- Performed daily pool maintenance and upkeep by vacuuming daily, testing chlorine and pH levels, and combating algae infections

## EDUCATION

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

**University of Waterloo**  
3.83 GPA