



# Keaton Lees

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keatonlees.me/portfolio

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## Experience

### Self Employed

May. 2021 - Aug. 2021

### Software Developer

Developed Octo-Do, a flexible to-do list web application that allows a user to create, edit and delete tasks using React, Node.js and MySQL

Implemented user authentication using Firebase and deployed completed application to Heroku

### Ballard Power Systems

Aug. 2020 - Dec. 2020

### Systems and Controls Engineer

Developed automated Python scripts to update and maintain sensor database of over 300 fuel cell modules that will be used by a production team of 20 members

Responsible for assembling and testing over 35 unique components for use in prototype fuel cells

### Ballard Power Systems

Jan. 2020 - Apr. 2020

### Systems Engineer

Developed programs to interface with hydrogen fuel cells using Arduino and Raspberry Pi microcontrollers to decrease testing times by 25%

## Projects

### Chromaton

Unity3D, C#

### Personal Project

Designed and developed Chromaton, a first-person puzzle-parkour game using Unity and C#

Constructed intriguing levels by implemented the ability to pickup, drop and combine coloured spheres to access new areas in each level

### Jarvis Smart Clock

Flask, HTML, CSS, Javascript, Python, Raspberry Pi

### Personal Project

Developed a personal web-based smart clock using HTML, CSS and Javascript running on a Raspberry Pi  
Implemented weather, music and alarm widgets using Python and Flask

### Puppr

HTML, CSS, Javascript, Python, Flask, Firebase

### TOHacks 2020 Hackathon

Developed Puppr, a digital web platform to connect dog-lovers with adoption agencies to adopt dogs  
Applied live web-scraping to keep the available dogs up-to-date using Python and Firebase

### Arcade Donkey Kong

Java, HTML

### Personal Project

Integrated external gyroscopic controls into an adaptation of the original 80s Donkey Kong arcade game using Java, JGEngine and HTML

## Skills

**Languages:** Javascript, Python, HTML, CSS, C#, C++, Java

**Frameworks and Libraries:** React, Node.js Flask, Bootstrap

**Tools:** MySQL, Firebase, Heroku, Unity, Git, 3D-Printing, Raspberry Pi, Figma

## Education

### University of Waterloo

### Systems Design Engineering

### Bachelor of Applied Science

Sept. 2019 - Present

**GPA:** 3.9/4.0

**Relevant Courses:** Digital Computation, Data Structures and Algorithms, Digital Circuits

## Interests and Hobbies

**Technology** and DIY Computers

**3D-Printing** and 3D-Modeling

**Taekwondo** - 3rd Degree Black Belt

**Track and Field** - Athlete, Coach and Official

**Volleyball** - Athlete and Coach