

Skills

- Languages** Java (Most Familiar); Python, C, C++ (Very Familiar); Kotlin, JavaScript, HTML, CSS (Prior Experience)
Technologies Experience with Git, Tkinter, Swing, OpenCV and Android Studio
Other Understanding of object-oriented programming, pointers, algorithms and data structures

Projects

ANTI-RONA LOCK SYSTEM

Oct. to Dec. 2020

- Assembled a mask and distance detection lock as a team of 5 to increase safety during the COVID-19 pandemic.
- Integrated the central components of our software using **Python**, **Tkinter** and **OpenCV**, resulting in a fully-functional project with a graphical user interface.
- Created a circular array **data structure** for easy navigation between previously processed images.
- Communicated effectively with every team member, allowing successful integration and completion of the project one week before the deadline.
- Debugged a key portion of our code successfully, preventing it from bringing our project to a halt.
- Derived the mathematical formulae for calculating distances between objects in an image and implemented them as functions.

CHESS

May to June 2019

- Built Chess from scratch with **Java** and **object-oriented programming** principles.
- Created a complete graphical user interface with movement animations using Java **Swing**.
- Implemented undo/redo, saving/loading, and additional features.

WEBSITE

Jan. 2021 to Present

- Constructed personal website with **HTML**, **CSS** and **JavaScript** and deployed to GitHub Pages.
- Embedded a video using the YouTube IFrame Player API.

GAMES

June to Sept. 2020

- Implemented Checkers, Connect Four, Tetris and more using mainly **C++**.
- Applied **object-oriented programming** principles.
- Employed **algorithms** for move/input validation, "Game over" checks, et cetera.

ANDROID APPLICATION

Dec. 2020

- Built a memory card game using **Android Studio** and **Kotlin**.

Experience

Kumon Educational Japan Co. Ltd.

Cambridge ON, Canada

GRADER/TUTOR

2017 to 2018

- Graded thousands of student worksheets and guided dozens of puzzled students.

Awards

UWATERLOO PRESIDENT'S SCHOLARSHIP OF DISTINCTION

2020

- 95+ admission average

AP SCHOLAR WITH DISTINCTION

2020

- Scored 5 / 5 on all 5 of my exams

CAYLEY (MATH) CONTEST SCHOOL CHAMPION

2018

- Scored top 1% out of 24,709 contestants

Education

University of Waterloo

Waterloo ON, Canada

CANDIDATE FOR BACHELOR OF SOFTWARE ENGINEERING

Sept. 2020 to Apr. 2025