# BRIAN HO

SOFTWARE ENGINEERING

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## Skills

### LANGUAGES

Java
C++
C
HTML/CSS
Python
JS

### FRAMEWORKS & LIBRARIES

Android
Butter Knife
Dagger2
Retrofit
RxJava2
Jenkins8
Firebase
JUnit
OpenGL ES 2.0
Qt
Swing

### TOOLS

Git
Android Studio
SVN

## Education

University of Waterloo
Candidate for Bachelor of Software Engineering
2020

## Employment

XE.com Inc. — Newmarket, ON
Software Developer — Jan 2017 to May 2017

- Contributed to app redesign to replace XE Currency app (> 5 million installs) on Play Store
- Utilized various third party libraries for app redesign structure and testing (**Dagger2** for dependency injection, **Butter Knife** for resources, **RxJava2** and **Retrofit2** for asynchronous retrieval and mapping of data)
- Migrated RateAlerts (**Firebase Cloud Messaging**) into its own Android resource library and integrated into app redesign
- Assisted with implementing **Firebase App Indexing** and **Deep Linking** in existing app
- Improved layouts in existing app and implemented **recyclerview** with search, swipe and move gestures in the redesign

Epson Canada Limited — Markham, ON
Software Developer — Apr 2016 to Aug 2016

- Developed Android applications for Epson Moverio (augmented reality glasses)
- Solved UI hanging issues by implementing asynchronous loading of 3D models
- Utilized **OpenGL ES 2.0** to dynamically render a 3D refined icosahedron for object training and tracking based on user perspective and depth
- Designed UI and improved functionality for internal applications using **Qt** and **C++**
- Demonstrated potential of glasses technology to foreign stakeholders and executives

## Projects

SuperAutomator — Jun 2013 to Current

- Java multi-threaded timer and MP3 player with UI designed using the Swing library
- Improved daily routine of high school administration staff by automatically playing the announcements and National Anthem since 2013

Mayo — Oct 2015

- Painting program designed using the Java Swing Library that utilizes the Myo Armband's gesture capabilities
- Mapped gestures to the paint brush (changing colours, brush size) using Myo Java API

Tetromino Simulator — Oct 2015 to Dec 2015

- Tetris game developed using Java and controlled by an Arduino microcontroller

## Volunteering

FIRST Robotics, Team 4343 · Team Captain and Mentor — Sep 2011 to Current

- Implemented PID controller for various subsystems
- Hosted open Java and object-oriented programming lectures to students

## Awards

University of Waterloo · President's Scholarship of Distinction — Sep 2015
Achieving higher than 95% admission average

Town of Aurora · Scholarship — Jun 2015
Having the highest academic average of 97%

YSCPC · Leadership Award — May 2015
Award for having outstanding leadership in AV Tech Team and robotics in highschool