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.
Software Developer — Newmarket, ON · 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
Software Developer — Markham, ON · 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