

# Ryan Liu

## Contact

+1 (778) 896 9099

ryanliu6.xyz

github.com/ryanliu6

dio.ryanliu@gmail.com

## Programming Languages

C

C++

Java

Python

JavaScript

## Software Libraries

Boost

OpenCV

Protobuf

MongoDB

GoogleTest

GoogleMock

## Development Technologies

Git

SVN

Postman

Keil µVision

Linux Systems

## Languages

English

Mandarin

## Education

09.2014– **Bachelors of Applied Science**

The University of British Columbia, Canada

12.2019 *Major in Computer Engineering, Minor in Mathematics*

GPA: 3.7

## Work Experience

09.2017– **Motion Metrics International**

Vancouver, BC

12.2017 *Software Developer Intern*

- Improved system stability by eliminating uncaught bugs through the implementation of system and unit tests using GoogleTest and GoogleMock
- Revised data collection algorithm by reducing density of clusters and increasing total number of collected points to increase accuracy of results
- Sped up overall system performance by more than 10% by removing layers of abstraction and refactoring legacy code to leverage standard C++11/14 libraries

01.2017– **SMART Technologies**

Calgary, AB

09.2017 *Firmware Engineer Intern*

- Designed an innovative serial-based control system in C++ to manage SMART's latest SMART Boards through the implementation of test-driven development
- Validated system functionality of latest SMART Boards through an automated test environment implemented in C++ using above control system
- Researched, designed, and tested prototypes of next generation SMART Boards

## Technical Projects

04.2018– **TVM-Calculator - Javascript based Accounting Calculator**

[github.com/ryanliu6/tvm-calculator](https://github.com/ryanliu6/tvm-calculator)

Present *Personal Project - Project was on hiatus from June to October*

- Developed a RESTful API for calculating accounting ratios and value of money
- An Electron-React based GUI application is currently in development

02.2018– **Cleanify - Atom Package**

[github.com/ryanliu6/Cleanify](https://github.com/ryanliu6/Cleanify)

04.2018 *Personal Project*

- Built an Atom package to refine code based on user-specified keywords using JS
- Integrated ability to modify keywords or to remove lines completely on the fly

09.2016– **CheckedOut - Shopping Application**

[github.com/BenjaminLang/cpen\\_321](https://github.com/BenjaminLang/cpen_321)

12.2016 *CPEN321 - Software Engineering*

- Developed a custom API in Python to interface with MongoDB NoSQL databases for efficient cataloguing of stores in the Greater Vancouver Area
- Implemented a custom caching algorithm in Python to provide users with quick and optimized search results based on their search history

## Interests

**Professional:** Firmware Development, Operating Systems, RESTful API, and Machine Learning

**Personal:** Reading, Editing, Writing (aspiring author), Fitness, Cooking, and Gunpla