



# Muchen He

UBC Electrical Engineering Undergraduate (Co-op Program)

## Contact

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## Attributes

🎓 May 2020 anticipated date of graduation

5 out of 8 academic terms completed

1 out of 5 work terms completed

Available for 4, 8, 12, or 16 months

Starting May 2018

## Technical Skills

### Programming

C, C++, JavaScript, HTML/CSS (Bootstrap), GLSL, Python, Processing, System Verilog, 8051 Assembly

### Hands-on

3D Printing, CNC Machining, Soldering, SMT Reflow, Oscilloscope

### Software

Altera Quartus and ModelSim, Autodesk Suite, Solidworks, Adobe Suite

## Technical Work Experience

### Vital Mechanics Research Inc.

Software Developer (Co-op) (May-September 2017)

- Developed applications using QT (GUI Framework), C++, and JavaScript; developed Model-View-Controller software structure
- Programmed realistic and interactive 3D viewers using OpenGL and WebGL

### University of Alberta

Software Intern (June-August 2014)

- Developed Android tablet game in Java and Android SDK
- Implemented features including haptic, visual, and audio feedback
- Presented talk on project specifications, goals, and experiences

## Technical Projects

### Sleep Logger Webapp

September 2017  
Uses realtime database and authentication to keep track of sleep statistics

### CircuitDraw Webapp

August 2017  
Circuit drawing app with ability to save and reload circuits via JSON

### Magnetic Field Tracking Robot

April 2017  
Microcontroller robot car that follows a wire that carries PWM signal;

### Game with Custom Serial Controller

April 2016  
DIY game controller with microcontroller that communicates via serial to a 3D game programed in Processing

For more projects and details, go to [www.muchen.ca/projects](http://www.muchen.ca/projects)

## Professional Affiliations

APEGBC - IMAPS  
IEEE - Student Member

## Awards

Dean's Honors List	2016
CTS Design Studies Best Student Award	2015
Provincial Skills Canada Mechanical CADD Competition 2nd Place	2015
Honors Student Award	2012-2015
Alexander Rutherford Scholarship	2015

## Hobbies + Activities

DIY Electronics   RC   Web Development   Programming   Microcontroller  
CAD Practices   Photography   Graphic Design