

Engineering Co-op Program Faculty of Applied Science 2385 East Mall

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# **Jasper Chan**

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#### **Technical Skills**

#### **Programming Languages Electrical Equipment** Software Oscilloscope • C/C++ SOLIDWORKS Signal Generator Python Inventor Multimeter JavaScript/Node.js EAGLE Soldering Iron Git Java • Perfboard/breadboard • Linux (multiple distros) MATLAB Qt/QML Vim • C#

#### Academic & Co-op Status

Academic Program:	<ul> <li>Mechanical Engineering; 3 of 8 academic terms completed;</li> <li>Anticipated date of graduation: May, 2020</li> </ul>
Co-op Status	$\bullet$ Completed 0/5 Work terms; available for 4 or 8 beginning January, 2018

#### **Technical Projects**

**Custom 3D Printer** December 2016 - Present

- Lead a team of 5 in building an i3 based 3D printer
- · Added a servo actuated pen to the printhead, allowing for multicolor prints without swapping filaments
- Wrote a GCode postprocessor to allow specific areas of a print to be colored

SSC Checker Bot May 2018

- Built a Telegram bot using Python that checks for grades on UBC's Student Service Checker and notifies users when new grades come out
- Grades are stored in a database using SQLAlchemy to allow for database agnostic operation

#### ASDS 2.x Sea-based Landing Pad Scale Prototype

January 2018

- Working with a group of 6 other students, worked through a formal engineering design process to build a boat capable of balancing and transporting model rockets
- Implemented a battery monitoring system to limit throttle based on power output, improving stability by preventing motor brownouts that would cause the boat to rock
- Wrote a class to remap controller inputs to a more intuitive control scheme allowing for greater control.

BM Bot January 2018

- Working with a group of 3 other friends, built a Discord bot using Node.js that would track user's League of Legends games
- Used the Riot Games API to detect when a user finished their game, and then would send messages to the user poking fun at them based on their performance

#### **Student Teams**

#### UBC Rapid

October 2016 - Present

- Team specializing in advancing rapid prototyping technologies, especially 3D printing
- Currently running cheapest 3D printing service on campus

## **Other Work Experience**

# Hamilton Kumon (Richmond, BC)

September, 2015 - February, 2016

Tutor/Marker

- Created a personal system to mark students' worksheets in an efficient manner
- Taught children mathematics and English at various levels in a friendly way that encouraged self-growth

### **Volunteer Work Experience**

# Richmond 19th

September, 2012 - Present

Scout Leader

- Plan and run engaging programs every week for youth aged 8-10
- Teach survival and life skills at camping trips, fostering an appreciation for the outdoors

#### Education

# The University of British Columbia

**Expected May 2021** 

Bachelor of Applied Science - Mechanical Engineering

Udemy 2018

**Certified Scratch Programmer** 

#### **Activities and Intrests**

- Billiards summer leagues
- Sports Ultimate Frisbee, snowboarding