

# Jamie Ngai To Lo

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## EDUCATION

### University of British Columbia

Chemical and Biological Engineering,  
Graduation: May 2019

CGPA: 3.6/4.33 (79%, 'B+' average)  
Honors: NSERC USRA

## SKILLS

Strong fundamentals of [chemical engineering](#) with understanding in [electrical design](#) and [programming](#).

[Cad Design](#): SolidWorks, AutoCad, Inventor, EAGLECAD

[Scientific Computing](#):  
MATLAB, Python, Arduino

[Programming](#)  
Ruby, Javascript HTML/CSS

## ACTIVITIES

[UBC Chem-E-Car](#), Logistics, Electrical

[Chemical Engineering Undergraduate Student Club](#), Webmaster

[Shung Ying Kung Fu Club](#), Assistant coach

[Origins](#), parkour

## AWARDS

### Cadet Medal of Excellence

Awarded to cadets who have demonstrated excellence in citizenship outside the Cadet program.

## WORK EXPERIENCE

### Chemical and Biological Engineering

Course developer, Lab Technician

Faculty and Staff

Jun 2017 – Sep 2017

- Created an open-source flipped classroom course material in Python to push contemporary, interactive pedagogy.
- Collaborated with peers and supervisors to develop content that is both relevant and engaging.
- Saved 200\$ by developing an interface to a dissolved oxygen probe using Python and Arduino instead of using Labview and a DAQ.
- Troubleshoot bioreactors, lab equipment, and spreadsheet macros for the laboratory course in the coming 2017-18 school year.

### The Biofoundry at UBC

Neuro-engineering Team

Research Assistant

May 2016 – current

- Developed a brain model for preclinical drug trials using induced pluripotent stem cells glia to create 3d neurospheres.
- Designed and created an apparatus to function with the targeted neurons while recording the interaction using Solidworks.
- Troubleshoot a 3-phase direct drive motor, and debugged the source code from Aerotech, saving \$1000 worth of consulting fees.
- Developed technical communications skills by contacting suppliers for products such as DAQs, and opto-mechanical equipment.

### Chemical and Biological Engineering

Administration

Office Assistant

Jan 2016 – May 2016

- Organized and tracked financial spendings of professors through their speedchart system.

### Kumon

Math and Reading Tutor

Assistant instructor

Jan 2011 – May 2016

- Guided K-12 students with an approachable, adaptive teaching style to ensure that individual students performed above their grade level.
- Coordinated a lesson plan for each student based on their strengths, weaknesses and pacing.

## TECHNICAL PROJECTS

### UBC Chem-E-Car Design Team

Logistics

- Managed the \$50,000 operating budget of the team, Expanded team from 10 to ~40 students in 1 year.
- Created and developed the Electrical systems controlling the car by breadboard prototyping and EAGLECAD for PCB fabrication.

### CHBE Student Council

Webmaster

- Collaborated with the student council to deliver pertinent content about academic activities, events, and conferences.
- Maintained the undergraduate council website using HTML and CSS.

## CONFERENCES & PRESENTATIONS

### AIChE Student Conference-2016

Chem-E-Car competitor: 'Chem-E-Car' - First place poster competition.

### Clean Energy BC Generate Conference-2016

Poster presentation: 'Zinc-nickel Flow cell'

### Engineering Research Day-2016

Undergraduate presentation: 'Chem-E-Car' - First Place