

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

Faculty and Staff

Course developer, Lab Technician

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 – Sep 2017

- 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 \$40,000 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