Jamie Ngai To Lo

jamie.lo@alumni.ubc.ca • NgaiTo.ca

EDUCATION

University of British Columbia

Chemical and Biological Engineering,
Graduation: May 2019

CGPA: 3.70/4.33 (79%, 'A-' average)

Strong fundamentals of chemical process engineering with understanding in electrical design and programming development.

SKILLS

Cad Design: SolidWorks, AutoCad, Inventor, EAGLECAD
Scientific Computing: MATLAB, Python, Arduino
Programming: Ruby, Javascript, HTML/CSS, VBA
Other: MS Office, MS Access, MS Visio

ACTIVITIES

UBC Chem-E-Car, Logistics, Electrical team
Shung Ying Kung Fu Club, Assistant coach
Origins, Parkour

AWARDS

NSERC Experience Award S2G BioChem-2018
NSERC USRA The BioFoundry-2017
First Place Poster: Chem-E-Car, AIChE Student Conference-2016
First Place Presentation: Chem-E-Car, Engineering Research Day-2016
Cadet Medal of Excellence, Royal Canadian Air Cadets

INTERESTS

3D Printing,
Trusting Natural Recursion,
Reading

WORK EXPERIENCE

Fortress Advanced Bioproducts (formerly S2G) — Technical Group

Research Assistant, Database Developer — Jan 2018 – Sep 2018

- Contributed research towards alditol separation via chromatography for front end engineering design.
- Aided the head analyst in sample preparation, and product concentrations using HPLC and Dionex.
- Developed a laboratory information management system (LIMS) in MS Access saving at least $40,000

Chemical and Biological Engineering — Undergraduate Assistant

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.

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 to create 3D neurospheres.
- Designed and created an apparatus to function with the targeted neurons while recording the interaction using SolidWorks.
- Troubleshot a 3-phase direct drive motor, and debugged the source code from Aerotech, saving $1000 worth of consulting fees.

Chemical and Biological Engineering — Administration

Office Assistant — Jan 2016 – May 2016

- Organized and tracked financial spending of professors through their financial "Speedchart" system.

TECHNICAL PROJECTS

UBC Chem-E-Car Design Team — Logistics

- Managed the $40,000 operating budget as the team expanded 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

Harvard National Collegiate Research Conference 2017

- Poster Presentation: 'Cerebro-Engineering Development of a Pre-Clinical Model of Neurodegeneration Toward Drug Delivery'

AIChE Student Conference-2016

- Chem-E-Car competitor: 'Chem-E-Car'

Clean Energy BC Generate Conference-2016

- Poster presentation: 'Zinc-nickel Flow cell'

Engineering Research Day-2016

- Undergraduate presentation: 'What is Chem-E-Car'