

# Ryan Yeung

Biomedical Engineering Student

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## Technical Skills

**Software:** Java, Python, C, MATLAB, R

**Wet lab:** Fluorescence microscopy, PCR, Assays and micropipetting

**Certifications:** Biological/Chemical Safety Certificate, Emergency First Aid & CPR/AED Level C

## Education

*University of British Columbia*

*Anticipated Graduation 2023*

Bachelor of Applied Science, Biomedical Engineering (Co-op)

## Technical Work Experience

*UBC CBH Raymond Lab Fiber Photometry Project*

**Data analysis research assistant**

*May 2020 – August 2020*

- Designed MATLAB scripts for behavioural and fiber photometry striatal neuron signal analysis of Huntington and wildtype mice models performing motor skill tasks. This helped identify meaningful differences and correlations between the two models
- Transformed hundreds of raw data sets into analytical values and organized in GraphPad Prism to visualize statistically significant trends and elucidate the role of altered cortico-striatal signalling in behavioural deficits of Huntington's disease mice models

## Technical Projects

**Motion Feedback for Pregnant/Postpartum Physiotherapy**

January 2020 – April 2020

- Conducted a rigorous design process involving consultation of clients and translating needs into detailed product design specifications to ensure final design fit perfectly with the user's needs
- Programmed a marker-less pose identification software in JavaScript with PoseNet and ml5.js which involved training a neural network to identify and respond to physiotherapy poses

## Engineering Student Teams

*UBC Open Robotics*

**Electrical Engineer**

*January 2020 – present*

- Designing motor control system and peripherals for the arm component of the team's flagship robotic project to compete at the Robocup@Home international competition
- Took initiative to present about biomedical engineering to first year mentees and assisted with presenting to prospective members about the team during UBC Imagine Day

*UBC BIOMOD*

**Research Engineer**

*December 2019 – present*

- Conducted copious amounts of research to develop a novel and feasible nanodevice to build, develop and test in preparation for the BIOMOD Biomolecular Design Competition 2020
- Requires designing an experimental procedure and learning lab techniques involved in designing and testing the design (caDNAno software, SDS-PAGE confirmation, AFM microscopy, etc.)

## Other Work Experience

*Booster Juice*

**Food Service Worker**

*July 2018 – January 2020*

- Provided service in a fast-paced environment while maintaining cleanliness and order
- Ensured customer satisfaction through effective teamwork, communication, time management and multi-tasking

*Geering Up*

**Instructor**

*June 2019 – August 2019*

- Delivered STEM-related activities to up to 50 kids of grades 4-7 while providing a fun environment for them to nurture their interest in STEM
- Demonstrated professionalism in communicating with parents, which included being responsible for sending daily emails to up to 60 parents

## Volunteer Experience

*Biomedical Engineering Undergraduate Student Association*

**Secretary**

*April 2020 - Present*

- Created and organized all executive and general meeting minutes which allowed for clear documentation of ideas and plans for all academic, social and professional development events for UBC undergraduate biomedical engineering students

## Interests

**Athletics:** Provincial badminton player – Volleyball – Hockey

**Arts:** RCM Level 10 Pianist – Saxophone – Jazz

**Other:** Game development, Food and cooking, bilingual (English and Cantonese)