



## Vanessa Yau

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### Highlights and Qualifications

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- Third year Bachelor of Science (BSc) with Honours in Geophysics
- Creative thinker with a large interest in natural geophysical processes
- Proficient in data processing and analysis in MATLAB
- Possess an Ontario Class G driver's license (equivalent to BC class 5)
- A motivated and organized team player with the ability to perform in various environments, developed through work, volunteering, and competitive sport experiences

### Education

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**Bachelor of Science, BSc  
Honours in Geophysics**

University of British Columbia, Vancouver BC

**Expected Graduation: May 2023**

### Scholarships and Awards

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| • KEGS Foundation BC Geophysical Society Scholarship | 2020/2021 |
| • Thomas and Marguerite MacKay Memorial Scholarship  | 2020/2021 |
| • NSERC USRA Research Award                          | 2020      |
| • Dean's Honour List, University of British Columbia | 2019/2020 |

### Publications

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Le Bouder, H. & Yau, V. (2019). A Sticky Situation: Comparing the Adhesive Strength of Pine Resin to Commercial Glues. *UBC cIRcle*. doi: 10.14288/1.0378885

### Work Experience

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**Undergraduate Research Student**

**May 2020-Present**

UBC Department of Earth, Ocean, and Atmospheric Sciences

- Used MATLAB to perform data analysis and interpretations for NASA's Mars InSight lander mission
- Worked on analyzing high-frequency solar array currents in IFG magnetic field signals, and presented findings at an InSight team meeting (NSERC research project)
- Currently examining potential variations in magnetic field signals near crater basin sites

**Undergraduate Teaching Assistant**

**September-December 2019**

UBC Department of Computer Science

- Led lab sections and office hours for UBC's introductory computer science course (CPSC110)
- Assisted students with the completion of their lab, and aided in understanding of the course material by promptly answering questions and giving mini lectures



## Summer Camp Counselor

July-August 2018 & 2019

Camp Green Acres

- Partnered with peer counselors to coach and lead children aged 5-9 in a variety of sports
- Created a fun and safe environment for the campers by encouraging participation and enforcing camp or sport-specific rules
- Collaborated with supervisors to ensure the satisfaction of the children and their parents by adapting to each child's preferred sports schedule and health requirements

## Volunteer Experience and Extra Curricular Activities

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### After School Program Coordinator

September 2019-Present

UBC Right to Play Club

- Worked with peers and school representatives to plan a weekly agenda of activities, and gather resources to run a successful program for dozens of elementary school children
- Recruited volunteers by contacting various UBC organizations and advertising to undergraduate students on various online platforms
- Coordinated volunteers and children at the weekly program by communicating instructions for activities and through allocation of the proper equipment, while ensuring the safety of the children during play

### Wellness Tutorial Leader

September 2019-Present

UBC Science One

- Led wellness workshops for groups of first year students to support their transition into university
- Worked with peers to develop programs for the monthly workshops based around the needs of the students

### UBC Alpine Ski Team

September 2018-Present

- Managed time effectively to balance school and sport as a former FIS ski racer competing in Ontario and Quebec, and continuing to train with the UBC team weekly

## Relevant Course Experience

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### EOSC354: Time Analysis and Inversion Theory for Earth Scientists

2020

- Used MATLAB to process data (applied tapers, and filters to recover signals)
- Performed analyses and transformations on time series
- Modelled data by inversion

### EOSC352: Continuum Dynamics

2021

- Applied conservation laws to problems involving geophysical heat transport, elasticity, and fluid dynamics
- Illustrated problems in MATLAB



**EOSC220: Introductory Mineralogy**

**2020**

- Identified various minerals and rocks using mineral properties, and inferred their origin in the context of mineral evolution on Earth
- Currently taking **Petrology and Field Techniques (Jan-Apr 2021)**
- Read geological maps, produced field sketches, and interpreted field data
- Learned to take strike and dip measurements, and navigate with a compass

**BIOL300: Statistics with Biological Applications**

**2020**

- Performed statistical tests and analyses in R

**EOSC222: Geological Time and Stratigraphy**

**2020**

- Applied methods for identifying features and unconformities in lithostratigraphic formations
- Produced lithology logs and outcrop sketches

**EOSC 211: Computer Methods in Earth, Ocean, and Atmospheric Sciences**

**2019**

- Manipulated field data of wind and ocean currents in MATLAB to create plots and videos of the degree of change at the various geographical locations and overtime
- Designed and debugged functions to graph derivatives and integrals using MATLAB