

Alex Wen

Mobile: +1 604-272-3832 | alex.wen@alumni.ubc.ca | [LinkedIn](#) | [GitHub](#)

Curriculum Vitae

Education

University of British Columbia

BSc. Candidate, Combined Honors Physics and Mathematics
Year 3 in 2019-2020 Academic Year

Research

Imperial College London, High Energy Physics Department (Summer 2019, July-August)

- Undergrad Research Student, LHCb Experiment (itself based at CERN)
- *Development and analysis of two-sample statistical tests with extreme sensitivities for particle physics analysis (detection of CP violation with matter/antimatter decay asymmetry)*
- Supervisor: Dr. William Barter

University of British Columbia, Physics Department (Summer 2019, May-June)

- Summer Student, ATLAS Experiment (itself based at CERN)
- *Application of machine learning (hybrid tree-sequence neural networks) to identify rare physics processes (top decays), with large amounts of data (up to ~17M events per analysis)*
- Supervisor: Prof. Colin Gay, Prof. Alison Lister

TRIUMF (Summer 2017, Fall 2017, Fall 2018)

- Undergrad Research Assistant, ElectroMagnetic Mass Analyzer (EMMA) Collaboration
- *Beam-target & detector Monte Carlo simulations accurately modelling spectrometer to study nuclear (astrophysical) reactions*
- Supervisor: Dr. Barry Davids

SNOLAB (Summer 2018)

- Undergrad Research Assistant, New Experiments With Spheres – Gas (NEWS-G) Collaboration
- *Calibration source simulations, detector simulations, and signal processing to characterize the effect of neutron radiation on the performance of upcoming light dark matter detector*
- Supervisor: Dr. Pierre Gorel
- * Second Place in Student Research Talk Competition

Research/Course Experience with: C/C++ | Python | MATLAB | TeX | PyTorch | Geant4 | CERN ROOT
Skilled at: Public speaking, academic tutoring, academic writing, teaching

Other Activities

UBC Department of Physics & Astronomy (Fall 2019)

Physics 100 Teaching Assistant, Tutorial

Wesley Music & Arts Academy (Fall 2017-Spring 2019)

Debate & Speech Instructor

UBC Debate Society (Fall 2017-present)

Varsity debater

UBC Alma Mater Society (Student Union) (January-April 2019)

Math & Physics Group Tutor

Honours and Awards

UBC Trek Excellence Award ×2 – *academically top 5% of year & faculty* (2018, 2019)

UBC Science Scholar – *total course average of 90%+* (2019)

UBC Faculty of Science J. Fred Muir Memorial Scholarship (2019)

UBC Department of Mathematics Stanley M. Grant Scholarship (2019)

UBC Science One Gateway Program Class President (2017-2018)

TRIUMF High School Fellow (2017)

SOAR Philanthropic Society Scholarship (2017)

Perimeter Institute International Summer School for Young Physicists (2016)