

# Skyler Alderson

- skyler@thealdersons.org
  - GitHub
  - LinkedIn
  - 604-807-1061
  - White Rock, BC
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## Professional Summary

Enthusiastic and detail-oriented recent graduate with a strong foundation in computer science and physics. Finds the best path to tackle a problem before starting. Adept at developing small-scale physics simulations, data analytics tools, and tools to solve math problems. Proven ability to solve complex problems, lead academic labs, and conduct research-based data analysis.

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## Education

**University of British Columbia** | GPA 3.90

- Bachelor of Science in Physics and Computer Science
  - Dean's List honoree on multiple occasions
  - Former Executive of UBCO's Astronomy Club
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## Experience

### Undergraduate Academic Assistant (Research Position)

**University of British Columbia** | 4 months

- Investigated the effectiveness of replacing paper lab manuals with Python Notebooks for early experimental physics laboratories.
- Developed Python scripts for data analytics on student submissions.
- Conducted thematic analysis of interview and survey data.
- Led semi-structured interviews with students.

### Computer Science Capstone Project

**University of British Columbia** | 4 months

- Developed an automated system for creating and grading SQL/RelAlg questions for a third-year course.
- Wrote JavaScript for functional SQL and relational algebra editors.
- Utilized SQL and the RelAX tool for relational algebra.
- Developed the backend using Python.
- CI/CD and full regression testing through DroneCI.
- Focused on full-stack development, achieving the highest grade in the class.

### Teacher's Assistant

**University of British Columbia** | 18 months

- Led two undergraduate experimental physics labs.
- Assisted in creating class slides.
- Graded homework assignments.

## Volunteer, iGEM

University of British Columbia | 2022

- Designed frontend using CSS and HTML for the iGEM wiki.
  - Contributed to the wiki's gold medal win in its category.
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## Skills

- **Programming Languages:** Python, Java, JavaScript, C, Lua, zsh and bash script, minor familiarity with Rust and R
- **Physics:** Experimental design and execution, handling lab data, problem-solving, simulation, and modeling
- **Other:** Git and GitHub, Docker, CI/CD, presentation skills, report writing, strong communication, focus