Skyler Alderson

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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.

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 UBC-O's Astronomy Club

Experience

Undergraduate Academic Assistant (Research Position)

University of British Columbia | 4 months

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

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, used Python for the backend.
- Utilized SQL and the RelaX tool for relational algebra.
- 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 labratories.
- 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.

Skills

Programming Languages: Python, Java, JavaScript, C, Lua, minor familiarity with Rust and R.
Data Analysis: Python, numpy, thematic analysis, semi-structure interviews.
Tools: Git and GitHub, Docker, MacOS, generative AI, bash and zsh.
Physics: Experimental design and execution, handling lab data, problem-solving, and modeling.
Other: Presentation skills, report writing, strong communication.