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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 UBCO's Astronomy Club

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 website/wiki. * Contributed to the wiki's gold medal win in its category.

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