

**Ben Holmes**  
**2<sup>nd</sup> Year Engineering Physics Student**

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## Summary

Focused and highly motivated worker. Able to carefully think through complex problems and generate novel, practical solutions. Excellent communicator who excels when working on large projects in a team environment.

## Skills

### Computer

- C, Java, Python
- Word, Excel, PowerPoint
- Object Oriented and Concurrent Design
- Web Development
- MATLAB
- Version control with Git

### Other

- Excellent communication skills
- Works well in a team
- Highly organized
- Safety focused
- Creative problem solver
- Experience with Scrum style meetings

### Electrical

- Analog and digital circuitry assembly and analysis
- Circuitry debugging with oscilloscope and multimeter
- Usage of op-amps, transistors, diodes, inductors and capacitors

### Mechanical

- SolidWorks, AutoCAD, and Ansys
- Small hand tools
- Experience using water jet cutter

## Technical Projects

### Academic Projects, UBC

September 2016 - April 2017

- Built an autonomous robotic claw using small hand tools and sheet metal. Used an Arduino, a servo, and a sonar sensor, to program the claw to automatically pick up items beneath it.
- Created an Excel model to simulate a household rainfall collection system on a remote island. Modified design parameters to create a robust solution that satisfied consumer needs.
- Controlled a seven segment display with a countdown timer in C.
- Wrote a program to map in Excel the position of the end-point of a physical two-member arm.
- Wrote programs in Java to deal with large graph data types consisting of over 36, 000 nodes.

### UBC Solar, Student Design Team

October 2016 – September 2017

- Fabricated components of the suspension and the steering rack.
- Performed finite element analysis on the rear suspension to ensure driver safety.
- Created technical welding and machining drawings for several components on the car.
- Helped design the car's battery safety box and ventilation system.
- Documented findings and test results in a mechanical design report.

### Personal Projects

September 2016 - Present

- I have undertaken a variety of personal projects which include: writing Android applications, creating a personal website, and writing software that automatically books me study rooms around campus.

## Education

### University of British Columbia

Bachelor of Applied Science in Engineering Physics (2<sup>nd</sup> year)

September 2016 - Present

## Work Experience

### Medicine Hat School District no. 76

I.T. Assistant

July 2017 - August 2017

Medicine Hat, AB

- Cleared computers and network hardware from schools scheduled for demolition.
- Installed computers and networks in two newly constructed schools.

### SportChek, FutureShop, Valhalla Pure

Sales Associate

September 2012 - August 2017

Edmonton/Medicine Hat, AB

- Scheduled service shop and car audio installation appointments.
- Greeted customers and answered product questions.
- Met or exceeded sales targets.

### Rabbit Hill Snow School

Ski/Snowboard Instructor

November 2014 - April 2016

Edmonton, AB

- Improved students' skiing by identifying area of weakness and designing target drills.
- Worked with a diverse clientele including children and people with various disabilities.

## Volunteering

I am currently volunteering as a web developer both for The Ubyyssey, UBC's student newspaper, and for the team building the new UBC Engineering Physics website

## Activities and Interests

I take pride in staying fit and being active. I run regularly, bike to school, and whenever I can, I try to get to the mountains to go backpacking or rock climbing. In addition to my active hobbies, I also enjoy photography and cooking with my friends. I spend what little free time remains on small independent projects; In the past I have written Android applications, built a magnetic knife block, built a wood shed, and added Bluetooth functionality to my car's door locks.

## References

Available upon request