

Ben Holmes

7benholmes@gmail.com | 306.514.2546

EDUCATION

University of British Columbia
BASc. Engineering Physics (year 3)
Expected Grad. May 2021

LINKS

GitHub: /BenGHolmes
LinkedIn: /in/BenGHolmes
Website: benholmes.net

SKILLS

Languages:

Java, Python, C++, C, MATLAB

Electrical:

Analog circuit development and analysis, soldering, multimeter and oscilloscope

Design/Prototyping:

Rapid prototyping, hand tools, water-jet cutter, 3D printing, OnShape/SolidWorks, Ansys

COURSEWORK

Instrument design (robotics)
Object-oriented programming
Circuit design and analysis
Technical communication
Signals and systems
Discrete mathematics
Mechanics of materials

ACTIVITIES/INTERESTS

Climbing, backpacking, and skiing
Craft beer and cooking
Travel and adventures
Photography

EXPERIENCE

UBC Sailbot Sept 2018 - present
Software Team Member

- Using ROS to connect a MATLAB based navigation system to a Gazebo simulation of the boat, in order to test our control systems before the physical boat is finished construction.

Blue Willow Systems Jan - May 2018
Co-op Software Engineer

- Researched emerging localization techniques and developed proof of concept that integrated with our existing system.
- Implemented front and back end changes to customer-facing web and mobile applications to add new features and improve user experience.
- Wrote custom Android application to showcase company technology during sales meetings when the full, cloud-based system could not be installed.

UBC Solar Oct 2016 - Sept 2017
Mechanical Design Team Member

- Design several components of the suspension, the steering rack, and the battery safety box in SolidWorks, and fabricated them using a water-jet cutter.
- Performed finite element analysis on the rear suspension using Ansys to ensure driver safety

PROJECTS

Autonomous Rescue Robot

Autonomous rescue robot that uses computer vision to detect and capture stuffed animals while navigating over bridges and gaps, and through narrow doorways. Built from scratch in 6 weeks.

WikiGame Bot

Bot written in Java that uses Selenium and a SQL database of connected Wikipedia pages to find the shortest paths between any two random pages. Consistently wins while playing against humans at www.thewikigame.com

Study App

Android application that schedules study session based on how well the user understood the material.

Bluetooth Doorlocks

Modified 2002 Honda Civic that can be unlocked from a phone using Bluetooth.