ROWAN SHARMAN

Experience

Olin College SAE Mini Baja

Electrical Subteam Lead

2017 to Current

Baja is a student-run build team that designs and fabricates a rugged offroad vehicle and races it annually in national competitions

- Design, program, and manufacture highly robust electronic sensing, communication, and display systems
- Guide new members through learning process to build a working system
- Communicate with other subteams to ensure smooth system integration
- Manage and assign tasks for on-time completion

Rowan's Shop

Owner and Mechanic

Gustavus, Alaska 2010 to Current

Primarily bicycle repair shop, but also services a wide variety of machines and electronic/communications systems such as lawnmowers and cell signal boosters

Blind Sailing Research

Needham, MA Summer 2017

Worked on development of a new system and updates to an old system which allow blind sailors to participate in match racing competitions

Developed a solid state 'tack indicator' which aims to replace hazardous and unreliable mercury switch tack indicators used around the world

- Patent pending
- Mechanical and electrical design, PCB design, programming
- Manufactured first 10 units

Prototyped a more reliable, usable, and durable buoy siren

Communicated with blind sailors, guides, and dock personnel to identify needs and areas for improvement in setup and use of equipment; provided iterations and improvements

University of Alaska Fairbanks Field Research Assistant

Glacier Bay, Alaska Summer 2015, Summer 2016

Worked for two summers on geomorphological research

- Transported and operated geological research equipment and boats
- Responsible for safety of team while working in extremely remote highstakes backcountry environments

National Park Service

Interr

Glacier Bay, Alaska Spring 2015

- Performed maintenance on boats, cars, and heavy equipment, including replacing parts, making adjustments, designing and fabricating parts and systems, diagnosing problems, and tuning engines
- Operated equipment such as bridge crane and skid steer

Education

Olin College of Engineering

Bachelor's degree Engineering:

Concentration in Mechatronics 2020

Montana State University

Honors College - undergraduate engineering student 2015-2016

Skills

SolidWorks CAD

Mechanical and Electrical Design, Prototyping, and Manufacturing

Programming Languages

Python

Arduino C

Java

MATLAB

Tools

Manual Mill

Lathe

CNC Router

Sheet Metal Fabrication

3D Printer

Laser Cutter

Band Saw

Drill Press

Chop Saw

Table Saw

Soldering Iron

Extensive experience with common hand and power tools

Info

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