# Rowan Sharman

### Mechatronics Engineer rowansharman.com

# **Experience**

**Optimus Ride** 

Boston, MA

Mechatronics Intern

Summer 2019

- · Prototyped, designed, fabricated, analyzed, and documented mechatronic systems for an autonomous vehicle
- · Modeled, optimized, and documented sensor blind spots

**Shell TechWorks** 

Cambridge, MA

Integration and Test Intern

Summer 2018

Worked on several new products in various stages of development, from initial ideation and proof-of-concept prototypes to reliability test design for production-stage products.

### Olin College SAE Mini Baja

Needham, MA

Fabrication Lead

2018 to Current

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

- · Participate in design at all levels to facilitate manufacture, maintenance, and repair
- Manage in-house fabrication
- Manage emergency repairs during competition
- Guide new members in design and machine shop operations
- Communicate with subteam leads and co-captains to ensure smooth integration
- · Manage and assign tasks for on-time completion
- Served as electrical subteam lead in 2017-18 build season

Rowan's Shop

Owner and Mechanic

A bicycle repair shop and town handyman, doing everything from carpentry projects to fixing lawnmowers, replacing phone screens, and installing cell signal boosters.

### Blind Sailing Research

Needham, MA

Gustavus, Alaska

2010 to Current

Student Researcher

Summer 2017

- · Worked on development of 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.
  - Mechanical and electrical design, PCB design, programming
  - Manufactured first 10 units
- · Communicated with blind sailors, guides, and dock personnel to identify needs and areas for improvement in setup and use of equipment; provided iterative improvements.

### **University of Alaska Fairbanks**

Glacier Bay, Alaska

Field Research Assistant

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, high-stakes, backcountry environments.

### **National Park Service**

Glacier Bay, Alaska Spring 2015

Intern

- · 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

B.S. Candidate 2020

Engineering: Mechatronics

### **Montana State University**

Honors College non-degree 2015-16

General Engineering

### Skills

SolidWorks

Fusion 360

Mechanical and Electrical Design, Prototyping, and Manufacturing

#### **Programming Languages**

Python

Arduino C

Tava

MATLAB

Mathematica

#### Tools

CNC and Manual Mill

Lathe

**CNC** Router

MIG Welder

Sheet Metal Fabrication

3D Printer

Laser Cutter

Band Saw

Drill Press

Chop Saw

Table Saw

Soldering Iron

Electronic Test Equipment

Extensive experience with common hand and power

## Info

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Project Portfolio: rowansharman.com

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