

# Rowan Sharman

Mechatronics Engineer  
rowansharman.com

## Experience

### NanoString Technologies

Mechanical/Sustaining Engineer and Prototyping Shop Manager

Seattle, WA

Aug. 2021 to Current

- Design, fabricate, and operate complex tools and fixtures for product testing and development
- Determine root cause of system failures, perform analysis, testing and validation, and deliver engineering change orders to correct issues
- Operate machine tools and prototyping equipment, and train others in safe and effective use of tools
- Organize, maintain, and stock small machine/prototyping shop
- Collect and analyze datasets from instruments and custom hardware using data science tools

### Arthur G. Russell Company

Olin College Senior Capstone Project

Bristol, CT/Needham, MA

Aug. 2019 to May 2020

Member of a five-person team designing and building a flexible and robust multivariable vibratory test platform to allow AGR to quickly test and optimize vibratory feeding operations.

- Design for usability, manufacturing, and assembly
- Test design, execution, and analysis
- Client and vendor negotiation

### Optimus Ride

Mechatronics Intern

Boston, MA

Summer 2019

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

### Olin College SAE Mini Baja

Fabrication Lead

Needham, MA

2018 to 2020

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

### Back Alley Bike Repair

Mechanic

Seattle, WA

Sept. 2020 to July 2021

Perform professional repair services to all bicycle systems, including diagnosis, parts ordering, customer interaction, and POS transactions.

### Blind Sailing Research

Student Researcher

Needham, MA

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

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, high-stakes, backcountry environments

## Education

### Olin College of Engineering

BS Engineering: Mechatronics 2020

### Montana State University

Honors College non-degree 2015-16

General Engineering

## Skills

SolidWorks

Fusion 360

DFMA

Machining and Fabrication

CAM

Mechanical and Electrical Design, Prototyping, and Manufacturing

### Programming Languages

Python

Arduino C

Java

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 tools

## Info

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🌐 Project Portfolio: rowansharman.com

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🌐 /in/rowansharman/