# **Charles Sutherland**

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Bozeman, MT

## **Education**

Graduate of Montana State University
Bachelor of Science in Mechanical Engineering [2016-2020] (GPA: 3.78)

#### **Professional Electives:**

**Design for Manufacturing/Tooling:** Part Drawings, dimensioning, tolerances, jigs and fixtures, manufacturability, manual mills and lathes, lean manufacturing processes

**CNC** and **CAM Technology** [Ref: Robert Kincaid (406) 994-4163]: Wrote toolpaths and operated Haas CNC mills and lathes; part setup, fixtures, speeds and feeds, tool life, machine maintenance, cycle time reduction, automation

**Design integration (Advanced CAD)**: Mostly SOLIDWORKS; complex shapes, simulations, animations, equation driven relations, part-driven assemblies, mechanical mates, design studies

## **Technical Skills**

Programs: SOLIDWORKS, MATLAB, AutoCAD, Fusion 360, Rhino 3D, ANSYS Mechanical APDL, Excel

**Manufacturing:** CNC, mills, lathes, routers, PIM, composites, sheet metal, jigs, fixtures, welding (MIG, TIG, and arc), plasma cutters, oxyacetylene torches, angle grinder, band saws, chop saws, etc.

**Certifications:** First Aid/CPR/AED/Lifeguarding, Level 1 Sailing Instructor

### **Work Experience**

Consulting Engineer | Robichaud Batten Systems (RBS) | Winter Break 2020 | Ref: (541) 380 1322

Created an Excel spreadsheet to calculate the mechanical properties of any given batten with a simple three point bend test using the following inputs: batten dimensions, load applied, and vertical deflection

Carpenter | Langlas & Associates | November 2020 – February 2021 | Ref: Bill Langlas (406) 580 4221

Rectified subcontractor mistakes on large government projects from foundation to framing to trim

Commercial Fisherman | Summers of 2020 - 2021 | Ref: Captain Peter Alexson (907) 299 3127

Drove skiff for 46 foot salmon seiner; regular engine and jet maintenance, improvisational problem solving for many engine and hydraulic issues, communication and constant procedure improvement

Carpenter/Laborer | Kirby Nagelhout Co | Summers 2018-2019 | Ref: Josh Grubb (541) 389-7119

Foundations, sidewalks, seismic upgrading, flooring, roofing, and trim

Sailing Instructor | Gorge Junior Sailing | Summers of 2012-2017 | Ref: Mallory Bozina (925) 285 4477

Head instructor; created lesson plans and taught classes on and off the water for sailors age 10-60, managed junior instructors, emphasis on punctuality, boat maintenance, organization and cleanup