

Claire Bohlig

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<https://bohligc.wixsite.com/online-portfolio>

SKILLS

Applications: SolidWorks (PDM, Simulation), JMP, Propel PLM, AutoCAD, MathCAD, LabVIEW, Microsoft Suite
Mechanical Design: Tolerance Analysis, Bolted Joint Design, Solidworks FEA, 2D Part and Assembly drawings, GD&T
Manufacturing Processes: Sheet Metal, CNC Machining, Weldments, Injection Molding, 3D Printing, Wire Harnesses
Machining: Laser Cutting, Milling, Soldering, Dremel Tool, Table Saw, Miter Saw, Drill Press, and Assorted hand tools
Programming: Java, Python, C++, and Racket (ISL+), MATLAB

WORK EXPERIENCE

Product Insight

Boxborough, MA

Mechanical Engineer II

July 2023 - Present

- Optimized the design of a robot-actuated sheet-metal tray by prototyping jigs and test setups, utilizing SolidWorks FEA, and calculating bolted joint and tolerance analysis to ensure the tray meets harsh environment requirements
- Designed a 40+ part medical device enclosure door composed of weldments, sheet metal, and plastic injection molded parts, applying skeleton/master model techniques and design for manufacturing (DFM) principles to reduce errors
- Prototyped a full-size medical device model out of wood to perform human factor studies on a custom 4-bar hinge and a gas spring lift assist, taking the design from sketch to final 2D part drawings while aligning with user needs
- Led a group of engineers in updating a subsystem in a room-sized robotic gantry system, requiring revision control in PLM system, cable assemblies, 2D part and assembly drawings, all while supporting the technical growth of members
- Drafted detailed project proposals for a client relationship that produced 2 years of projects, communicated goals and requirements, and managed a team of 2-5 engineers to deliver work on time and within budget
- Coordinated with domestic and international vendors to quote estimates and manufacture released designs
- Established a co-op development program with a focus on increased co-op productivity. Hired and managed co-ops

Starry Internet

Boston, MA

Mechanical Engineering Co-op

July 2022 - October 2022

- Redesigned a dish mounting assembly, implemented feedback from field technicians, reducing the aiming and adjustment time of a system from 30+ minutes to under 10 minutes, which increased the number of daily installations
- Evaluated and optimized custom parts and assemblies to withstand outdoor environments through hand calculations, FEA simulations, and physical prototype testing

SharkNinja

Needham, MA

Mechanical Engineering Co-op

July 2021 - December 2021

- Prototyped innovative solutions with 3D printers, band saw, Dremel, and other hand tools to assist with the design process of two product lines to meet key performance indicators
- Developed a test rig that integrates Arduino and C++ coding with dial indicators and Hall Effect sensors to measure the changing interaction and distance from a vacuum nozzle to the floor over a user's stroke with a vacuum
- Identified pain points on competitor products to reverse engineer solutions for the Shark brand

Desktop Metal

Burlington, MA

Hardware Engineering Co-op

July 2020 - December 2020

- Drafted and reviewed in SolidWorks more than 25 parts to be used company-wide, including paint markings, basic GD&T, sheet metal for manufacturing, and larger project assemblies
- Collaborated with a team of 5 engineers on full concept design tasks, including creating and designing cable wiring, DFMEA analysis for identifying problems, part mock-up, and drafting technical drawings of the solution

EDUCATION

Northeastern University (GPA 3.98)

Boston, MA

B.S. in Mechanical Engineering, Minors in Computer Science and Women's Studies

May 2023

Activities: Strong Women Strong Girls, Northeastern Knits, Pep Band, NU Sci, Society of Women in Engineering, ASME

Honors: Capstone Product Development Winner, 2021 President's Award, Dean's List, National Merit Finalist

INTERESTS

Competed in cabinet making on a national level through the organization SkillsUSA | Plays bassoon, clarinet, piano, and guitar | Enjoys knitting, crocheting, painting, throwing pottery, and other crafts | Avid skier, wakesurfer, and pickleballer