

AJ Lugthart

Boulder CO

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224-688-8504

WORK EXPERIENCE

Opterus R&D

Mechanical Engineering Intern

May 2023 - August 2023

- ▶ Design jigs for fabricating, testing, and stowing of deployable space structures
- ▶ Fabricate designs using 3D printing and traditional manufacturing techniques
- ▶ Assist with testing, stowing, and modification of deployable structure prototypes

CU Boulder, Boulder CO

Art Metal Shop Assistant, Welding Instructor

August 2022 - Present

- ▶ Lead weekly MIG welding workshops to introduce students to welding
- ▶ Give project advice to students
- ▶ Teach students to use welders, mills, lathes, and other machine tools
- ▶ Keep machines and shop space clean, organized, and in working order
- ▶ Maintain a safe and friendly shop environment

Packsize, North Brunswick NJ

Resident Service Engineer

September 2021 - July 2022

- ▶ Conduct maintenance, service, and modifications on industrial box-cutting machines
- ▶ Troubleshoot mechanical, electrical, and pneumatic issues
- ▶ Teach operators how to safely use and maintain machinery
- ▶ Travel to sites around the US for machine service, go-lives, and trainings
- ▶ Write technical documents, collaborate with other service engineers to increase our collective knowledge

EDUCATION

Northwestern University, Evanston IL

Bachelor of Science in Mechanical Engineering

September 2016 - June 2020

- ▶ Cumulative GPA: 3.502

CU Boulder, Boulder CO

Master of Science in Mechanical Engineering

Expected 2024

- ▶ Cumulative GPA: 4.000

PERSONAL SKILLS

- ▶ Generating unique ideas
- ▶ Troubleshooting
- ▶ Working in teams
- ▶ Conflict resolution
- ▶ Excellent written and verbal communication skills

FABRICATION SKILLS

- ▶ Milling, Turning
- ▶ TIG, MIG welding
- ▶ Wiring, Soldering
- ▶ 3D printing
- ▶ Water jet
- ▶ CNC

DESIGN SKILLS

- ▶ Drafting
- ▶ GD&T
- ▶ CAD (Solidworks, NX)
- ▶ MasterCAM
- ▶ FEA (ANSYS)
- ▶ Embedded programming
- ▶ PCB design (EAGLE)
- ▶ Experience working with industrial machines

CODING LANGUAGES

- ▶ Python
- ▶ C
- ▶ MATLAB
- ▶ JavaScript
- ▶ Arduino
- ▶ SQL
- ▶ MongoDB
- ▶ HTML, CSS