

Kienan Giffen

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SKILLS

CAD: SolidWorks (CSWA Certified, C-U9WVGZ4NJ8), OnShape

Engineering: Prototyping, Technical Drawings, GD&T, Troubleshooting

Manufacturing: CNC Lathe and Mill, 3D Printing, Mechanical Assembly

Programming: C++ (VSCode)

PROJECTS

Voron 2.4 3D Printer

March 2026 – August 2026

Mechanical/Electromechanical Build

- Built and configured a CoreXY 3D printer, integrating mechanical, electrical, and software systems.
- Diagnosed mechanical and electrical faults by isolating failure points and systematically testing belts, idlers, motors, sensors, and control electronics.
- Configured Klipper firmware and integrated the printer's control electronics, sensors, and toolhead.

Automated Garbage Patch Boat

January 2024 – May 2024

Team Member

- Collaborated with a 5-person engineering team to design and prototype an autonomous trash collection boat.
- Designed the boat's hull and equipment layout in OnShape, separating electronics and non-waterproof components from the open collection area.
- Designed a conveyor belt mechanism to collect and transport debris from the water into the boat.
- Researched existing ocean-trash collection systems and incorporated relevant design features into the prototype.
- Presented the completed prototype at the Engineering Design Expo.

Acoustic Guitar CAD Model

October 2025 – December 2025

- Measured an acoustic guitar using meter sticks and calipers to develop an accurately scaled CAD model.
- Modeled four major components in SolidWorks, assembled the complete model, and created functional engineering drawings.

EXPERIENCE

Closing Manager

October 2024 – Present

Cosmos Pizza

Lafayette, CO

- Lead 10+ employees during high-volume dinner shifts, managing operations and resolving team issues.
- Developed a local business partnership generating more than \$10,000 in annual sales.
- Work 30+ hours per week while maintaining a full-time engineering course load.

Maintenance and Facilities Manager

May 2017 – October 2024

SSC Hospitality

Denver Metro Area

- Maintained facilities across six restaurants, troubleshooting plumbing, electrical, and mechanical systems.
- Performed hands-on repairs using drills, circular saws, reciprocating saws, and die grinders.
- Diagnosed equipment and facility issues to minimize operational downtime.

EDUCATION

University of Colorado Boulder

B.S. Mechanical Engineering. Minor in Anthropology and Quantum Engineering. GPA: 3.136.

May 2028

Relevant Coursework: Intro to Computer Aided Design, Thermodynamics 1, Statics and Structures, Dynamics, Manufacturing Processes and Systems, Fluid Mechanics, Differential Equations/Linear Algebra