

Jimmy Pare

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Summary

Fourth-year Mechanical Engineering student with experience in semiconductor manufacturing, CAD, and FEA. Certified in Abaqus and winner of the 2025 Prime Engineering FEA Competition. Business owner and Dean's list student passionate about finding real world engineering solutions.

Education

The University of Vermont

Aug 2022 - May 2026

BS, Mechanical Engineering

- **GPA:** 3.78 Cumulative
- **Achievements:** Dean's List 2023, 2024, & 2025
- **Coursework:** Computational Solids Engineering (Abaqus), Mechatronics, Compressible Flow

Projects

Senior Capstone

- Developed an automated laser engraving system with a focus on manufacturability.
- Electromechanical design operates using a microcontroller, solenoid actuation, and a rail system for capacity.

Award

Prime Engineering

- Winner of Prime Engineering's regional Finite Element Analysis competition.
- Competition consisted of performing FEA to determine the maximum weight a nuclear payload supporting structure could bear.

Experience

GlobalFoundries

May 2025 - Aug 2025

Equipment Engineering Intern

- Implemented IPA and N2 flow detection on cutting edge semiconductor manufacturing equipment, improving product quality and reducing risk of scrapped wafers.
- Installed data acquisition cards, industrial grade computers, and data processing software to relay critical information in an efficient and secure manner.
- Troubleshoot and repaired motors for exhaust ventilation, saving \$2,300 per motor.
- Applied statistical process control to monitor tool health, enabling early detection of performance drift and decreasing unplanned downtime.

Jimmy's Home and Yard Care

Jul 2022 - Present

Owner

- Founded and currently manage a general contracting business serving 100+ clients across three counties, including many repeat customers. Primary workload consists of carpentry, drywall, painting, and flooring.
- Oversaw maintenance of 12 estates in 2024 and handled all aspects of operations, including client communication, budgeting, and project execution.

Ace Hardware

2021 - 2021

Sales Associate

Resolved customer concerns efficiently in high stress situations while maintaining professional demeanor.

Bruley and Bruley Construction

2020 - 2021

General Laborer

Assisted in a wide range of construction processes including carpentry, drywall, and painting.

Skills

- **CAD Software:** SolidWorks, AutoCAD, Onshape, Abaqus, Ansys Fluent
- **Technical Skills:** CNC operation, 3D printing, woodworking, hand & power tools, metrology tools
- **Programming:** Python, C++

Certification

- **Abaqus:** UVM Department of Engineering