

# Jimmy Pare

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## Summary

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Fourth year mechanical engineering student with experience in electrical and software systems integration in the semiconductor industry. Certified and awarded in CAD and FEA. Dean's list student and business owner passionate about finding practical engineering solutions.

## Education

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### 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
- **Club:** CAD Designer for the UVM Chapter of AIAA (2026)

## Experience

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### GlobalFoundries | *Equipment Engineering Intern*

May 2025 - Aug 2025

- Installed data acquisition cards, industrial computers, and data processing software to relay critical information in an efficient and secure manner.
- Implemented IPA and nitrogen flow detection on semiconductor manufacturing equipment, enhancing tool performance in technical environments through system integration and debugging processes.
- 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 | *Owner*

Jul 2022 - Present

- 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 | *Sales Associate*

Jan 2021 - Jun 2021

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

### Bruley & Bruley Construction | *General Laborer*

Jun 2020 - Aug 2021

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

## Projects

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### Senior Capstone

Aug 2025 - May 2026

- 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.

## Skills

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

## Certification

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- Abaqus: UVM Department of Engineering