

# Atharva Kharwadkar

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## Career Summary

Dedicated Mechanical Engineering student with practical experience in CNC machining, CAD design, and research applications, complemented by hands-on work with Formula SAE competition projects. Combines technical programming capabilities with manufacturing expertise to optimize processes and performance while meeting precise specifications.

## Work Experience

**John Cockerill**, Engineering Intern – Salem, OH June 2025 – September 2025  
(\$1.2B Annual Revenue, 6,500 Employees)

- Incoming Engineering Intern for the development of an automation tool related to equipment consolidation.

**ARMS Lab** – Davis, CA September 2024 – Present  
(Advanced Research for Manufacturing Systems, 20 Personnel)

- Designed and fabricated vises within tolerances of 0.005" for research in Directed Energy Deposition (DED).
- Processed measurements prior to DED for comparison using Micro-Vu equipment and software.
- Serviced DMG Mori NVD1500DCG machines to prepare for undergrad and research use at ARMS UC Davis.
- Improved CNC Machine user documentation for greater new-user onboarding and maintenance routines.

**Carrier Global**, Engineering Intern – Shanghai, CN July 2022 – August 2022  
(\$20B Annual Revenue, 53,000 Employees)

- Implemented Creo Parametric and Rapid Prototyping for Commercial HVAC design and development.
- Employed production drawing expertise in Creo Parametric to support accurate manufacturing.
- Developed programming (C/C++) within Creo Parametric to raise design accuracy to exact specifications.

**Tech Mahindra**, Intern – Shanghai, CN August 2022 – September 2022  
(\$6B Annual Revenue, 260,000 Employees)

- Optimized data validation for over 1000 transactions by developing a program using Python and Excel.
- Automated account balance calculations within seconds by using the Python libraries Pandas and NumPy.
- Adapted to the norms and language of a professional working environment in China.

## Projects

**Formula Racing UC Davis**, Mechanical Engineer – Formula SAE Electric Competition September 2023 - Present

- Reduced production time as far as 92% (from 6 hours to 30 minutes) via the introduction of CNC machining.
- Designed components with up to a 10% decrease in mass, whilst maintaining a Factor of Safety above 2.
- Manufactured parts on the Manual Lathe and Mill within stricter tolerances as tight as 0.005".
- Created production drawings suitable for submission to FSAE Design Reports judged by the SAE.
- Leading the drivetrain sub-team in the research and implementation of a 4-wheel drive hub motor system that has shown a 1 second improvement across endurance and autocross lap time simulations.

## Education

**University of California, Davis** – BS in Mechanical Engineering Expected Graduation: June 2027  
College of Engineering Dean's List GPA: 3.55/4.00

## Skills

**CAD:** SolidWorks, Creo Parametric.

**Analysis:** FEA, Fusion360, HSMWorks, Matlab, C/C++, Python.

**Machining:** CNC Mill, Manual Lathe, Manual Mill, Rapid Prototyping, Marvel Saw, Belt Sander.

**Languages:** English, Mandarin, German, Hindi