

# Owen Campbell

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## EDUCATION

### **University of Massachusetts: Amherst**

Bachelor of Science - Mechanical Engineering

Anticipated Spring 2027

Dean's List

Fall 2025

## EXPERIENCE

### **Project Director / Minutemen Racing (UMass Formula SAE)**

May 2025 - Present

- Lead an engineering team consisting of 55+ members across several disciplines in the design and manufacturing of a high-performance Formula-style race car for collegiate competition
- Collaborate and communicate with department heads and potential sponsors to secure funding and foster a safe, inspiring, and constructive work environment
- Present to general members weekly on team successes, opportunities, and areas for improvement

### **Aerodynamics Subteam Lead / Minutemen Racing (UMass Formula SAE)**

January 2025 - May 2025

- Managed a group of 6 engineers focused on researching, designing, and manufacturing aerodynamic components of an open-wheel racing vehicle
- Led the development of mechanical assemblies and components, utilizing advanced manufacturing techniques in collaboration with the UMass Amherst ADDFab Lab

### **Aerodynamics Subteam Member / Minutemen Racing (UMass Formula SAE)**

September 2023 - January 2025

- Utilized CFD and FEA techniques to optimize downforce and reduce drag while considering design for manufacturing
- Manufactured the rear wing of an FSAE car utilizing fiberglass molding techniques
- Accumulated hands-on engineering experience and received machine shop training

### **Store Guide (Part-time, 10-16 Hours Weekly) / Eastern Mountain Sports**

May 2025 - Present

- Offered insight on various outdoor gear and products, utilizing both the experience of product design and outdoor adventures to provide product recommendations to customers
- Served as a friendly and professional store representative, assisting with customer service and outfitting customers with suitable equipment

## PROJECTS

### **Printed Circuit Board (PCB) Holder, UMass Amherst, Manufacturing Processes**

- Developed a PCB design that integrated additive manufacturing, machined parts, and sheet metal to meet customer specifications, while focusing on preventing manufacturing issues for later business units

### **Radiator Mounting System, UMass Amherst, Minutemen Racing (UMass Formula SAE)**

- Oversaw and managed the development of a system to securely attach a radiator to the chassis of an FSAE car
- Taught SolidWorks, provided feedback on prototyped PLA 3D printed components, and approved final 3D printed nylon components

### **Rear Wing Mounting System, UMass Amherst, Minutemen Racing (UMass Formula SAE)**

- Designed and fabricated a system to mount the rear wing of an FSAE car in place, accounting for large aerodynamic forces through hand calculations, CFD, and FEA

## COURSES

System Dynamics, Heat Transfer, Design of Mechanical Components, Fluid Mechanics, Manufacturing Processes, Thermodynamics, Differential Equations, Strength of Materials, Dynamics, Statics

## SKILLS

Software: SolidWorks, MATLAB, Ansys, Microsoft Office, Google Suite, Adobe Suite

Technical: CNC Training, Machine Shop Training, GD&T, DFM, TRAK Mill, Drill Press, 3D Printing, FEA, CFD