

# Daniel B. O'Malley

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## EDUCATION

**Cornell University**, College of Engineering, Ithaca, NY **Expected May 2027**  
Bachelor of Science, Mechanical Engineering, Minor in Business  
**Relevant Coursework:** Statics and Mechanics, Thermodynamics, Multivariable Calculus, Differential Equations, Physics I & II

**Foxborough High School**, Foxborough, MA **June 2023**  
**Awards:** Academic Excellence Awards in Physics and Engineering, Alvin Stewart Athletic Award (sole recipient recognizing support of community and other students, upholding high values)

## SPECIALIZED SKILLS

**Software:** SolidWorks, Inventor, PTC Creo, AutoCAD, Fusion360, ANSYS, Nastran, Python, Java, Matlab  
**Fabrication:** Hand tools (drills, mitering, etc.), manual lathes and mills, CNC milling, TIG welding, soldering  
**Language:** Spanish (Massachusetts State Seal of Bilingualism)

## ENGINEERING EXPERIENCE

**Cornell Baja Racing**, Cornell University, Ithaca, NY, *Brakes Subteam* **October 2023–Present**

- Working with a team of 50 fellow undergraduates to design, manufacture, and race an off-road vehicle against international collegiate teams in the Baja SAE Design Series
- Designing and machining master cylinders for the 2024–2025 car and analyzing stresses with Ansys FEA
- Designed parts to build a dynamometer and measure the efficiency of custom brake pads/rotors for 1<sup>st</sup> place 2023–2024 car
- Assembled brake lines and created CAM for caliper brackets with high precision operations then manufactured on CNC mill
- Manufactured inserts, bushings, fixtures, and other parts on manual mills and lathes gaining ~50 hours of shop time

**Fabreeka International**, Stoughton, MA, *Mechanical Engineering Intern* **May 2024–August 2024**

- Designed large-scale reconfiguration of thermal break materials and hardware using Nastran FEA/CFD, reducing heat loss across structural beams by 37% and setting new guidelines to save clients energy
- Conducted vibration surveys and analysis to reduce amplitudes up to 98% at precision equipment/CMM sites
- Led project to develop trade show assemblies showcasing company products by completing 3D models and engineering drawings to coordinate with suppliers
- Benchmarked competitor products for thermal break design studies and introduced design recommendations within budget

**Dell Technologies Student Star Program**, Hopkinton, MA, *Team Lead* **July 2022**

- Led a team of 4 other high-achieving students to conduct a case study maximizing the sales of an advertising agency
- Won 1<sup>st</sup> place presentation for formulating and presenting a plan making use of advanced technologies in engineering fields
- Worked with engineering, finance, and marketing professionals in leadership development programs

## LEADERSHIP EXPERIENCE and ACTIVITIES

**Engineering Leadership Certification Program**, Cornell University, Ithaca, NY **August 2024–Present**

- Selected to take part in a one-year program focused on development of teamwork, leadership, and professional competency
- Attend retreats to collaborate on projects with other engineers and complete capstone event tied to core curricula

**Cornell Sprint Football**, Cornell University, *DI Varsity Wide Receiver* **September 2023–Present**

- Nominated to participate in the Big Red Leaders 2 Leaders program, representing my team to workshop leadership skills with varsity athletes from each NCAA Division I team at Cornell in a three-year training program
- Commit ~25 hours per week to training, meetings, film-study, travel, and competitions while maintaining full course load

**Mansfield Animal Shelter**, Mansfield, MA, *Volunteer* **July 2021–Present**  
**Varsity Track and Field**, Foxborough High School, *Captain (4 Seasons)* **November 2019–June 2023**  
**Foxborough Community Farmstand**, Foxborough, MA, *Volunteer* **May 2018–August 2021**

## OTHER INTERESTS

Skiing / Golf / Video Editing / Woodworking / Spikeball / Guitar / Spending time with family, friends, and my dog Layla