

# Nico Moldovean

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## EDUCATION

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**Tufts University**, School of Engineering  
*Bachelor of Science in Mechanical Engineering, Minor in Mathematics*  
Summa Cum Laude | Senior Thesis with Highest Honors

Medford, MA  
May 2025

## PROFESSIONAL EXPERIENCE

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### Redwire Space

Longmont, CO

*Engineering Intern – Full Time (through 2024 Matthew Isakowitz Fellowship)*

May 2024 – August 2024

- Researched, designed, and modeled RF test caps for three high-power satellite-based communications antennas
- Maintained full project ownership and collaborated directly with the customer to meet changing requirements and needs
- Brought the RF test cap design and development process in-house, a capability never previously attempted at Redwire
- Organized and created multi-level requirements and verification statements in Jama; Modeled over 30 parts in SolidWorks

### National Aeronautics and Space Administration (NASA)

Greenbelt, MD

*Pathways Student Trainee (Mechanical Engineering) – Part Time*

October 2023 – March 2024

- Designed a rotating mass properties test fixture in PTC Creo for the DAVINCI Venus probe flight qualification unit

*Pathways Student Trainee (Mechanical Engineering) – Full Time*

June 2023 – August 2023

- Engineered and fabricated a rotating wind tunnel setup test fixture, incorporating new and existing interface hardware
- Created test plans for an AoA-insensitive pressure and temperature instrument intended for the Venusian atmosphere
- Modeled and drafted over 25 parts and assemblies in PTC Creo; ensured proper version control using Windchill
- Developed, modeled, and fabricated 8 unique test model variations to investigate flow and pressure recovery characteristics
- Maintained high ownership across the project; collaborated with internal stakeholders to ensure test program met requirements

### Microwave Engineering Corporation

North Andover, MA

*Mechanical Engineering Intern – Full Time*

August 2023

- Created 5 thorough technical procedures for critical proprietary AS9100-compliant dip-brazing process documentation
- Provided detailed recommendations for improving long-term quality, consistency, and reliability of dip-brazed parts

*Mechanical Engineering Intern – Full Time*

May 2022 – September 2022

- Performed SolidWorks 3D modeling, drafting, CNC programming and machining for 94 precision Aerospace RF components
- Conducted internal manufacturing audits and wrote process documentation in accordance with AS9100 and ISO 9001 QMS
- Improved and documented tooling, mold design, and curing processes for 4 composite parts (prepreg and foam-based)
- Maintained high level of ownership across 30 production and development projects, driving lean manufacturing practices
- Worked with internal stakeholders to rapidly implement customer, engineering, production, and quality improvements

## LEADERSHIP

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### Tufts SEDS Rocketry Team

September 2021 – June 2025

*Rocketry Team Lead & Chief Engineer*

Medford, MA

- Designed, built, integrated, tested, and flew complex high-powered competition rockets (5600N+ thrust & 10,000+ ft apogee)
- Oversaw requirement creation and validation, interface management, schedule, and design; managed risk at all levels
- Led team to success in 2024 International Rocket Engineering Competition (IREC): 18<sup>th</sup>/65 in category, 33<sup>rd</sup>/121 overall
- Improved 2025 IREC entry via architecture redesign, part optimization, composites development program, and process control
- Translated requirements into part designs using hand calculations, SolidWorks FEA & COMSOL; reduced total mass by 31%
- Analyzed vehicle, system, & part performance data to increase efficiency, reduce cost & complexity, widen launch envelope
- Grew the team (5 to 60), organized meetings, directed technical workshops, managed detailed budget creation & procurement

### Tufts Students for the Education and Development of Space (SEDS)

October 2021 – May 2025

*President*

Medford, MA

- Managed club operations (110 members), led the executive board, liaised with Tufts administration and professional contacts
- Increased attendance and engagement (+40% YoY average), ensured sustainable growth; acted as official club spokesperson
- Collaborated with Tufts Treasury and external sponsors to obtain and budget \$70,000 annually across 5 project teams

## SKILLS, AWARDS, & INTERESTS

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**Software:** SolidWorks, OnShape, Creo, Mastercam, Fusion 360, MATLAB, Ansys, KiCAD, Microsoft Office, G-Code, Python, C++

**Manufacturing:** CNC Machining, Mill & Lathe, Composites (prepreg, wet layup, filament wound), Tooling design, Sheet Metal, ASME Y14.5 GD&T, drafting, additive (FDM & SLA), Laser Cutting, Waterjet, Soldering, Neoprene Molding, Table/Miter/Bandsaw

**Languages:** French (fluent), Romanian (fluent), Spanish (proficient)

**Skills:** Engineering Design, Design for Manufacturability, Systems Engineering, Project Management, Teambuilding, Communication

**Awards:** Best Undergraduate Thesis – Tufts Mechanical Engineering Department (2025), Matthew Isakowitz Fellow (2024)

**Interests:** Space Exploration, Aviation, Violin, Piano, Cooking, Skiing, Soccer, Jam Making, Gardening, Reading, Family and Friends