

# JULIAN MONZAVIFAR

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## EDUCATION

North Carolina State University:

**B.S. Mechanical Engineering:** GPA: 3.86/4.0

Raleigh, NC

Aug 2025 - May 2029

## SKILLS & CERTIFICATIONS

- Certified SolidWorks Associate with 5+ years of CAD experience in SolidWorks and Onshape
- CNC mill/lathe, CAM, FEA, design for manufacturability (DFM), TIG welding, mechanical assembly, Excel

## ENGINEERING & PROFESSIONAL EXPERIENCE

### Weldon Steel

Weldon, NC

*Manufacturing Engineer and Operations Intern*

May 2026 - Present

- Designed and implemented data collection device to monitor machine utilization while analyzing operational workflows identifying an improvement for a 30% projected increase in plasma cutter efficiency
- Collaborated with machine operators to map 80% of core fabrication workflow and created training materials to standardize manufacturing processes and improve employee onboarding
- Audited financial data to develop prediction models for revenue recognition aiding in planned Cap Ex projects

### Pack Motorsports Baja SAE

Raleigh, NC

*Drivetrain Engineer and Manufacturing Lead*

Aug 2025 - Present

- Direct drivetrain, suspension, and brakes subsystem redesigns to guarantee DFM, coordinate manufacturing timelines, and personally redesign the vehicle's front U-joint axles and hubs to reduce assembly weight by 20%
- Train new members in CNC operation, CAM programming, and manual machining practices
- Programmed and machined three sets of front axle assemblies alongside the steering housing and half the CVT

### Center for Additive Manufacturing and Logistics

Raleigh, NC

*CNC and Additive Manufacturing Researcher*

Oct 2025- Present

- Operate three and five axis CNC mills to machine various metals using Fusion CAM, and post machine additive manufactured components utilizing custom fixture design
- Collaborate with professors and graduate students to refine designs for manufacturability, create technical drawings, and complete machining for research projects on schedule
- Serve as technical representative, showcasing facility to faculty, prospective students, and industry sponsors

### Hampton's Mobile Service

Huntersville, NC

*Mechanic*

May 2025 - Aug 2025

- Diagnosed mechanical and electrical issues, providing accurate service quotes and repair timelines to customers
- Performed routine maintenance and vehicle repairs to all major components in the undercarriage and engine bay

## LEADERSHIP & CO-CURRICULAR ACTIVITIES

### Labyrinth Robotics, *FIRST* Robotics Competition Team

Morganton, NC

*Team Mentor (Formerly Captain & Head Engineer)*

May 2025 - Present

- Coordinate and facilitate engineering training in CAD, manufacturing, and DFM to ensure team knowledge transfer
- Audit technical design viability, enforce project scope to meet season deadlines, and oversee inventory and procurement
- Secured \$10,000 in team funding through grant applications, outreach, and local business partnerships

### North Carolina School of Science and Mathematics

Morganton, NC

*Residential Life Assistant*

Aug 2024 - May 2025

- Supported 36 residents through peer guidance, conflict resolution, weekly hall meetings, and 1:1 check-ins
- Cultivated community by planning and executing 4+ monthly hall events while allocating and managing community budget

## HONORS & AWARDS

First Place 2026 Baja SAE Carolina Night, NCSU Dean's List, National Merit Commended Scholar, and NCSSM Outstanding Service Award (Completion of 150 hours of Community Service)