

Evan Ruga

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PROFESSIONAL SUMMARY

Mechanical Engineering student at Ohio Northern University with hands-on experience in mechanical systems, CAD design, fabrication, and automotive engineering. Certified SOLIDWORKS Professional (CSWP) with experience as Suspension Design Lead for Baja SAE competition vehicles for Polar Bear Racing, as well as rebuilding internal combustion engines.

EDUCATION

Ohio Northern University

Bachelor of Science in Mechanical Engineering. Automotive Concentration. 3.1 GPA Engineering coursework

Allegan AESA Tech Center

Engineering Technology. GPA: 4.0.

Ada, OH

May 2028

Allegan, MI

May 2024

PROJECTS

Baja SAE — SAE International

Fall 2024 – Present

Suspension Design Lead, Ohio Northern University

- Redesigned the full suspension system; passed SAE Baja Suspension and Traction, Technical Inspection, and Course Completion for the first time in eight years.
- Designed and modeled flexible suspension assemblies in SOLIDWORKS, fabricating components including H-arms, A-arms, and tie-rods; created the first comprehensive digital twin of the Baja car.
- Served as pit crew lead, managing time-sensitive major repairs throughout an international endurance race against Division I programs.

Bobcat Skidsteer Diesel Engine Rebuild

2023 – 2025

- Performed full extraction and teardown of a Kubota V1702 4-cylinder diesel engine following internal rust damage.
- Sourced replacement components and coordinated machine shop operations including cylinder re-boring, crankshaft polishing, and valve work.
- Reassembled the engine, verifying mechanical tolerances, and reinstalled it into the skid steer.

Ford F150 Restoration

2023 – 2025

- Rebuilt a 1995 Ford F150, focusing on front suspension, braking systems, and 4x4 drivetrain components.
- Designed and fabricated a custom transmission crossmember to correct drivetrain geometry from a prior lift modification.
- Applied body panel painting techniques using paint code matching and two-part clear coat with professional spray equipment.

Ford Ranger Restoration

2021 – 2021

- Restored a 1997 Ford Ranger 4.0L V6 4x4 that had been sitting unused for several years.
- Replaced major mechanical components including starter, spark plugs, freeze plugs, braking system, exhaust system, and sensors.
- Refurbished the interior and repainted exterior sections while installing a new stereo system.

SKILLS

CAD Design: SOLIDWORKS 3D and 2D Modeling, Weldments and Sheet Metal, Design for Manufacturability

AI Utilization: Utilize A.I. for self development, organization within Baja SAE and increased productivity

Machining: TIG and MIG Welding (Aluminum and Steel), Laser Cutting, CNC and Manual Lathe, End Mill

Automotive: Suspension Systems, Shock Tuning, Combustion Engines

Coursework: Design for Manufacturing, Computer applications, Fluids, Machine component design, Dynamic system modeling, etc

CERTIFICATIONS

- SOLIDWORKS Certified Professional (CSWP) — Parametric part and assembly design
- SOLIDWORKS Certified Associate (CSWA)
- FANUC Robot Teaching
- OSHA 10
- CPR/AED

ACTIVITIES & LEADERSHIP

Allegan High School Men's Tennis

2020 – 2024

Team Captain

- 2x Doubles qualifier at Conference, Regional, and State levels.
- Recognized for top leadership within team - Coaches award

SAE Baja (ONU Polar Bear Racing)

2025-present

Suspension Design Lead

- Completed and placed 8th - Suspension and Traction - South Carolina 2025