

Ryan Yazzie

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Education

Northern Arizona University - Flagstaff, AZ

Expected Graduation: May 2025

- Bachelor of Science (B.S) - Mechanical Engineering: 3.60 GPA

Awards / Distinctions

- Dean's List
- Cobell Scholarship
- Wassaja Fellow

On - Campus Involvement

- American Indian Science and Engineering Society - Treasurer
- American Society of Mechanical Engineers - Human Powered Vehicle Challenge

Projects

Team Lead and CAD Engineer | First Nations Launch Competition

August 2024 - Present

- Leading multi-disciplinary team in designing, building, and launching in national high powered rocket competition.
- Designed, manufactured, and integrated 5 sensors to measure flight performance metrics into Launch Vehicle.
- Coordinating communication between faculty advisors, team members, and competition organizers.
- Overseeing CAD design, Rocksim flight trajectories, MATLAB analysis, and rocket avionics bay integration.

Simulations Lead and Drone Pilot | First Nations Launch Competition

January 2024 - May 2024

- Modeled rocket and drone components to conduct FEA to ensure structural integrity and optimize design performance.
- Utilized RockSim to model flight trajectories and optimize rocket performance with Drone Payload.
- Applied manufacturing techniques such as 3D printing and carbon fiber layup for increased structural integrity.
- Completed project documentation detailing safety, testing procedures and results.

Team and Simulations Lead | Robotic Rehabilitation Cup Simulation

January 2024 - May 2024

- Design a robot to assist people in regaining motor dexterity and functional movement.
- Performed FEA analysis in SolidWorks to revise design for improved structural integrity.
- Manufactured 3D Printed prototypes utilizing PLA to ensure dimensional accuracy and structural integrity.

Work Experience

Teaching Assistant | Fluid Mechanics I and II – NAU College of Engineering

August 2024 – Present

- Facilitated group discussions and activities to enhance student engagement and comprehension.
- Graded assignments and quizzes, providing detailed feedback to students.
- Assisted in the creation and administration of quizzes, exams, and homework assignments.
- Created summative documentation of performance metrics of students for NAU ABET Credentials

Teaching Assistant | Experimental Methods in the Thermal Sciences– NAU College of Engineering

January 2025 – Present

- Graded assignments and quizzes, providing detailed feedback to students.
- Assisted in the creation and administration of quizzes, exams, and homework assignments.
- Created summative documentation of performance metrics of students for NAU ABET Credentials.

Supplemental Instruction Leader | NAU Academic Success Centers

August 2023 - Present

- Instructed for courses including Applied Mechanics Statics and Electrical Engineering I.
- Facilitated an engaging team learning environment through metacognitive strategies.
- Organized formative and summative assessments to aid students in comprehension of material.
- Collaborated with Faculty Partner to design/revise instruction plans to be implemented in course requirements.

Safety and Traffic Coordinator | San Diego 22nd District Agricultural Association

June 2022 - July 2023

- Coordinated clear, direct communication with internal team and external groups during large-scale events.
- Managed and directed traffic, executing control strategies that ensured operational safety of customers and vehicles.