

Andrew Estrada

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EDUCATION

Northern Arizona University

Aug. 2020 – May 2024

Mechanical Engineering

Flagstaff, AZ

- NAU Founders Gold Scholarship
- Member of, Formula SAE, SAE Baja, Space Jacks, and ASME

WORK EXPERIENCE

Parker-Meggitt- US Safety Systems

July 2023 – Aug. 2023

Manufacturing Engineering Intern

Simi Valley, CA

- Designed and implemented innovative fixtures to enhance process safety and ergonomics, resulting in increased efficiency, productivity, and adherence to LEAN manufacturing
- Collaborated with design engineers to conduct failure analyses and implement effective corrective actions
- Provided invaluable assistance to production personnel by updating and clarifying work instructions, optimizing production processes and ensuring smooth operations

Accu-Glass Products, Inc.

May 2022 – Aug. 2022

Engineering Intern

Santa Clarita, CA

- Responsible for operating Haas CNC Mills and Lathes to complete components for capital projects
- Constructed 3D CAD models and technical drawings for manufacture
- Aided in process for work holding and manufacturing methods
- Initiated precision quality control and effectively took precise measurements to ensure effective tolerance for high-accuracy air to high and ultra-high vacuum parts

RELEVANT PROJECTS

- **Formula SAE:** *Northern Arizona University* April 2023 – May 2024
 - Front Pushrod Suspension Lead, responsible for design, validated geometry within LOTUS Suspension Shark, utilized ANSYS to simulate driving conditions, collaboration with chassis team for successful integration
 - Manufactured Front Pushrod Assembly utilizing CNC Mill and Lathe, programming with Mastercam
 - Team Test Engineer responsible for test planning, data acquisition and analysis (DAQ), evaluating design choices and vehicle dynamics against lap simulations to suggest car setup changes.
 - Key asset in founding a Formula SAE team at Northern Arizona University for spring 2024 competition
 - Sponsor relations manager, new member outreach coordinator, website developer and social media manager
- **NASA Student Launch Competition:** *Northern Arizona University* Fall 2022 - Spring 2023

Team invited to compete in Student Launch Competition upon winning FNL competition. Tasked with the construction of a rocket carrying an automated camera system capable of imaging the immediate landing vicinity

 - Responsible for design and testing of GPS subsystem, while aiding Avionics Team with troubleshooting, integration and packaging
 - Performed performance simulations of rocket using Open Rocket
 - Performed analysis and optimization of stage ejection and methodology
 - Serving as safety officer to ensure safe protocol, and rule compliance.
- **Eagle Scout Project:** *Boy Scouts of America* Fall 2019
 - Conceptualized community service project in partnership with the city of Santa Clarita, California, over a course of one year, fundraised, designed utilizing CAD, presented to local businesses and led 50+ volunteers in the renovation and beautification of Haskell Canyon Open Space

SKILLS & INTERESTS

- **Technical Skills:** SolidWorks; ANSYS; Fusion 360; Inventor; MATLAB; Microsoft Office Suite; Mastercam;
- **Manufacturing Skills:** Haas 3-Axis CNC Mill and 2 & 4-Axis Lathe Experience; FDM 3D Printing; LSSS
- **Interests:** Mountain Biking; High Power Rocketry; Sound Systems and Acoustics; Cars; Backpacking; Travel