

BENJAMIN FREEMAN

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SUMMARY

Detail-oriented Mechanical Engineering student with a 3.9 GPA and a strong foundation in fabrication, CAD design, welding, and machining. Experienced in hands-on workshop environments through academic and industry roles. Passionate about engineering and eager to contribute to campus shop operations through safe, efficient, and high-quality work.

EDUCATION

B.S. Mechanical Engineering, Propulsion

Embry – Riddle Aeronautical University | Prescott, AZ

Graduation – May 2026

- GPA: 3.9

EXPERIENCE

Machining Assistant | ERAU Campus Machine Shop (AXFAB) | Prescott, AZ

Aug 2025 - Present

- Produce parts from conception to completion using CAD, CAM, and CNC/manual lathes and mills.
- Assist students in best practices and safe operation of manual and CNC machines.
- Monitor the machine shop for safety and cleanliness, and intervene when necessary.

Product Designer

Dyno-Comp Performance Tuning | Scottsdale, AZ

May 2024 – Aug 2025

- Conducted 3D scans and CFD analysis to improve the cooling and aerodynamics of performance vehicles.
- Designed and 3D-printed custom components to customer specifications.

Fabricator

Accessory Partners | Scottsdale, AZ

May 2023 – Aug 2023

- Used CAD and 3D scanning to prototype components for sunroof and suspension systems.
- Manufactured metal and plastic parts in a hands-on shop environment.
- Reverse-engineered legacy parts for vintage vehicles.

PROJECTS & LEADERSHIP

Foil Bearing Endurance and Analysis Rig – Capstone (Sponsored by Honeywell)

- Designing a test rig to evaluate wear on foil bearings for use in auxiliary power units (APUs)
- Collaborate with a team of seven to evaluate project requirements, scope, and produce a viable product within budget.

President, ERAU Eagle Makerspace | Prescott, AZ

- Responsible for onboarding and training monitors who oversee the space
- Train members on safe and proper use of shop tools and machinery
- Operate and maintain a variety of machinery including a lathe, mill, ShopBot CNC router, and several band saws.