BENJAMIN FREEMAN

Scottsdale, AZ | (602) 617-3531 | bencfreeman@outlook.com | U.S. Citizen | BenFreeman.me (Portfolio)

SUMMARY

Detail-oriented and highly adaptable mechanical engineering student seeking an entry-level engineering position. With a strong foundation in CAD design, mathematics, machining, and various software packages, I'm eager to gain my start in the field of mechanical engineering.

EDUCATION

B.S. Mechanical Engineering, Propulsion   **Graduation: May 2026**

Embry – Riddle Aeronautical University | Prescott, AZ

- GPA: 3.9

EXPERIENCE

Machining Assistant | Embry-Riddle Campus Machine Shop **|** 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 and reverse-engineered 3D scans to produce custom, one-off solutions to meet customer needs.
- Utilized CFD analysis to validate the effectiveness of designs.
- Maintained a fleet of 3D printers and created standard operating procedure documents for equipment use, maintenance, and best practices.

Freelance CAD Designer | Fiverr.com   **May 2022 – Present**

- Worked with customers to produce original CAD designs for prototyping and production.
- Received requirements and interfaces in various forms to create drop-in replacement parts for existing applications.
- Managed time effectively to deliver all ongoing projects at or before agreed upon delivery date.

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 Testing Rig – Capstone Project (Sponsored by Honeywell)

- Responsible for designing a test rig to evaluate wear on foil bearings for use in auxiliary power units.
- Create mathematical and computer models using Matlab and ANSYS Fluent.
- 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 a plethora of others.