

Isaiah Bish

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PROFESSIONAL SUMMARY

Aerospace engineering senior (B.S., Rocket Propulsion focus, Dec 2025 graduation) with a minor in CAD and CSWA certification. Experienced in rocket propulsion design, turbomachinery analysis, and CAD/CFD integration through advanced academic projects and industry sponsored prototyping. Skilled in bridging theory and hardware design to deliver manufacturable, validated solutions.

SKILLS

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|---|----------------------------|
| • 3D Modeling (CATIA, Solidworks, Inventor) | • Design for Manufacturing |
| • MATLAB | • Microsoft Office Suite |
| • Ansys Workbench Software | • Project Leadership |
| • Computational Fluid Dynamics | • Team Collaboration |
| • Statistical Analysis | • Time Management |

CERTIFICATIONS

- SOLIDWORKS CAD Design Associate (CSWA)

PROJECT EXPERIENCE

Senior Design Project | Heavy-Lift Launch Vehicle

Lead Propulsion Analyst/Designer – Rocket Propulsion Design

- Led propulsion analysis and design for a heavy-lift Mars launch vehicle, including turbopump modeling (compressor, turbine, shaft dynamics) within a full-flow staged-combustion cycle.
- Integrated cycle analysis, CFD, and FEA to validate engine performance and ensure structural and thermal integrity.

Drone Bracket Design – Industry-Sponsored (Confidential Client)

Designer – 3D-CADD/Rapid Prototyping

- Designed and prototyped a modular 3D-printed drone bracket for aerospace applications, balancing weight, rigidity, and manufacturability under real-world performance constraints.
- Applied FEA to optimize structural performance and reduce vibration while evaluating material trade-offs and print parameters.
- Produced CAD models and prototypes under NDA, gaining hands-on experience in integrating analysis, CAD, and additive manufacturing in an aerospace context.

EDUCATION

B.S. in Aerospace Engineering

Embry-Riddle Aeronautical University

- Focus on Rocket Propulsion
- Minor in Computer Automated Design

Relevant Coursework: Rocket Propulsion Design, Jet & Space Propulsion, Aerodynamics, Aerospace Structures, Spacecraft Attitude Dynamics & Control, Rapid Prototyping, Thermodynamics.

PROFESSIONAL EXPERIENCE

Sheetz

Sept. 2019 – June 2024

Salesperson

- Worked to build relationships with customers and build potential for additional sales.
- Engaged with customers in social conversations to create pleasant and easy shopping experiences.