

Stephen Baird II

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EDUCATION

Embry-Riddle Aeronautical University

Major: B.S. Aerospace Engineering – Rocket Propulsion Track

Relevant Coursework: Orbital Mechanics, Rocket Propulsion,
Spacecraft Attitude Dynamics, Aerodynamics

Daytona Beach, FL

May 2026

GPA 3.3/4.0

PROJECTS

Senior Design: Lunar Transportation System

2025-Present

- Designing a LOX/LH2 modular rocket for routine LEO-LLLO cargo and crew transfer
- Performing tank sizing, propellant feed analysis, and structural integration

Research: Spacecraft Trajectory Prediction with Machine Learning

2024-Present

- Implementing neural networks and regression models to predict orbital trajectories
- Goal: reduce trajectory prediction error for spacecraft in LEO/GTO transfers

MATLAB Chess AI Project (Individual)

2023-ERAU

- Programmed rule-based chess engine with AI opponent

SKILLS

- Software: CATIA v.5, SOLIDWORKS, Fusion 360, Onshape, TinkerCAD
- Programming: MATLAB, Python, Power Automate, GitHub
- Technical Tools: Propulsion Analysis (CEA), Trajectory Modeling, Drafting, 3D Printing, Circuit Design

ACTIVITIES

NCAA Athlete - **Track & Field Decathlon**

2022-Present

- Competed in 10-event decathlons at the collegiate level, demonstrating discipline, resilience, and time management

LEADERSHIP

Senior Resident Advisor

2025-Present

- Led 13 resident advisors ~ 80 residents; ensure policy compliance, crisis management and community development

Resident Advisor

2024-Present

- Supported 60 students, promoting trust, safety, and academic success

Good Shepherds Foundation Organization Co-founder

2016-Present

- Established nonprofit youth board; coordinated community projects, fundraising, and outreach

Embry Riddle Residential Student Association Parliamentarian

2023-2024

- Organized weekly meetings; ensured policy alignment and procedure compliance

Embry Riddle Residential Student Association Executive Coordinator

2024-Present

- Acted as communication bridge between Housing department and RA staff

AWARDS

Embry-Riddle Aeronautical University Dean's List

2022-2024

Embry-Riddle Aeronautical University Scholarship

2022-Present

Peach Belt Conference Presidential Honor Roll

2022-Present

ADMIX Robert Edward Hines, Jr. Scholarship

2022-2023