

Ethan Yemm

Embry-Riddle Aeronautical University

B.S. Aerospace Engineering

Minor: Computer Science

Expected May 2028 | U.S. Citizen

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Daytona Beach, FL



TECHNICAL SKILLS

Languages C#, TypeScript, SQL, Python, C, C++

Platforms Git, Linux, Docker, Azure, relational databases

Frameworks Angular, ASP.NET Core, REST APIs

Systems Telemetry, distributed workflows, engineering operations software

ENGINEERING EXPERIENCE

Icarus Sounding Rocket Program

2024–Present

Avionics Division Lead

Daytona Beach, FL

- Lead a 20+ member multidisciplinary division developing avionics, flight software, and launch infrastructure to deliver reliable, integrated systems for student-led sounding rocket missions.
- Direct technical integration from development through flight operations, coordinating flight computers, ground systems, telemetry, and launch-control infrastructure to improve mission readiness and cross-system reliability.

Embry-Riddle Orbital Research Association

2024–Present

Software Developer

Daytona Beach, FL

- Develop reusable software, communications, and ground-support infrastructure to reduce mission-specific development and accelerate integration of student and faculty research payloads.
- Support research campaigns from payload integration through flight operations, standardizing flight-support systems to improve repeatability and reliability across experimental missions.

SELECTED SOFTWARE PROJECTS

Hermes — Engineering & Mission Operations Platform

2025–Present

Angular • ASP.NET Core • SQL • REST APIs • Telemetry

- Architect and develop a full-stack engineering platform unifying project management, resource planning, mission readiness, and launch operations to improve coordination across a multidisciplinary aerospace organization.
- Build real-time launch-control, telemetry, health-monitoring, and analysis systems to give controllers immediate vehicle insight and support faster, more informed mission decisions.
- Develop an Angular frontend, ASP.NET Core REST API, and relational SQL data layer with authenticated, role-restricted workflows to securely support engineering and mission operations at organizational scale.

Imperator — Nation Civilization Simulator

2026

Java • Swing • OOP • Procedural Generation • Simulation

- Architected procedural generation, autonomous nation behavior, conflict resolution, and stochastic world-event systems to produce varied, repeatable simulation scenarios.
- Architected modular systems for procedural terrain generation, nation behavior, stochastic world events, conflict resolution, reporting, and interactive Swing visualization.
- Implemented configurable victory conditions and persistent reporting to compare nation dominance, stability, economic performance, conflicts, eliminations, and event histories across simulation runs.

HAM Flight Computer Family — Avionics Division Lead

2025–Present

STM32 • Embedded C/C++ • CAN • SPI • I²C • Telemetry

- Develop modular STM32 flight computers integrating redundant sensing, data logging, GPS/telemetry, and autonomous flight functions to provide reliable onboard avionics for high-power sounding rockets.
- Scale the HAM architecture from compact, low-cost avionics to an 8-channel redundant flight system, reducing dependence on expensive COTS flight computers while supporting increasingly complex missions.