

Ethan Yemm

Embry-Riddle Aeronautical University
B.S. Aerospace Engineering
Minor: Computer Science
Expected May 2028 | U.S. Citizen

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SKILLS

Programming	C, C++, C#, Python, TypeScript, SQL	Software	Angular, ASP.NET Core, REST APIs, Git, Linux, Docker
Avionics	STM32, embedded systems, telemetry, CAN, SPI, I ² C	Engineering	CATIA, CAD, reverse engineering, technical drafting, systems integration

ENGINEERING EXPERIENCE

Icarus Sounding Rocket Program	2024–Present
<i>Avionics Division Lead</i>	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
<i>Software Developer</i>	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.

PROJECT EXPERIENCE

HAM Flight Computer Family — Avionics Division Lead	2025–Present
STM32 • Embedded C/C++ • CAN • SPI • I ² C • 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.

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.

Project Minerva — Software Team Lead	2024–Present
LoRa • Telemetry • Ground Stations • Embedded Systems	

- Develop reusable software and communications infrastructure to reduce integration time and provide researchers with rapid, repeatable access to high-altitude balloon flight testing.

RC Excavator Reverse Engineering — Mechanical Design / CAD	2024
CATIA • Reverse Engineering • Technical Drafting	

- Reverse-engineered a COTS RC excavator in a 2-person team by disassembling and physically measuring the vehicle to produce an accurate digital reconstruction in CATIA.