Nathan George

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OBJECTIVE To obtain an internship in aerospace engineering and work on cutting-edge research and development.

EDUCATION

Embry-Riddle Aeronautical University (ERAU) — Daytona Beach, FL
Bachelor of Science, Aerospace Engineering — May 2027
Minor in Applied Mathematics — GPA 4.0

Brophy College Preparatory — Phoenix, AZ
High School Diploma — GPA 3.95

PROJECT EXPERIENCE

ERAU Robosub Competition – Autonomous Submersible Robot (2023-Present): 20-person team
- Designing and soldering custom printed circuit boards for power distribution and LIPO battery monitoring
- Teaching other members of the project the basics of electrical engineering for use on the robot
- Designing and wiring CAN bus and emergency kill switch circuit

ERAU Project Prometheus – Experimental Rocket Engine (2023-Present): 12-person team
- Designing avionics bay for dual parachute deployment of the rocket and flight data recording
- Simulating velocity and apogee data for test flight and experimental flight of the rocket

FIRST Robotics– Autonomous and Controllable Robots (2019-2023): 10-person team
- Coded in Java, wired and cable managed the robot's sensors and power systems, and assisted in robot CAD design using OnShape
- Trained custom TensorFlow neural network to determine the configuration of field elements and complete challenges accordingly
- Competed in First Tech Challenge and First Robotics Challenge

NAR Level 1 Certification Launch – 234 Impulse Rocket (2023): Solo project
- Built 4 ft rocket with motor delay parachute deployment
- Simulated the rocket launch using Open Rocket
- Launched on an H-234 motor to 1492ft

BrophySat-1 – CubeSat Project to Aid Valley Fever Diagnosis (2020-2022): 15-person team
- Planned, designed, and began testing electrical systems for a CubeSat to aid doctors in correlating atmospheric dust and valley fever cases for predicting outbreaks
- Coordinated with NASA CubeSat program, school administration, and Arizona Department of Health Services to secure funding and support

Honeywell-Fiesta Bowl Aerospace Challenge – Theoretical Mission to Phobos (2019): 5-person team
- Planned and modeled 10-year mission to Martian moon Phobos and presented mission ideas to a board of engineers and judges
- Researched use of CubeSats for communication over the Deep Space Network using both X-bands and Ka-bands

LEADERSHIP/ INVOLVEMENT

Electrical Lead – ERAU Robosub (2023-Present)
Director of Programming and Electrical Systems – FIRST Robotics and First Tech Challenge Robots (2021-2023)
Co-Founder and Electrical Lead – BrophySat-1 CubeSat Project (2020-2022)

AWARDS

Embry-Riddle Dean's List (Fall 2023)
2019 Honeywell-Fiesta Bowl Aerospace Challenge Winner
Captain of the Winning Alliance – Arizona Reunion FIRST Tech Challenge Competition

SKILLS

Engineering Software:	CATIA v.5, OnShape, Altium, Fritzing
Programming:	High Proficiency: Python, Java | Moderate Proficiency: MATLAB, HTML, JavaScript
Machine Learning:	TensorFlow Convolutional Neural Network, YoloV8 Object Detection and Tracking
Office Software:	Microsoft: Word, Excel, PowerPoint, Teams | Google: Docs, Sheets, Slides, Meet
Technical:	Drafting, 3-D printing, Laser Cutting, Water Jet Cutting, Plasma Cutting, Saw Cutting
Aviation:	Private Pilot's License (Apr 2024), NAR Level 1 High Power Rocketry Certified