William "Aubrey" Geary

Daytona Beach, FL | 901-451-2638 | w.aubrey.geary@gmail.com | www.linkedin.com/in/w-aubrey-geary | w-aubrey-geary.github.io

EDUCATION

EMBRY-RIDDLE AERONAUTICAL UNIVERSITY **GPA: 3.29 | MAY 2024**
Bachelor of Science in Aerospace Engineering – Astronautics Daytona Beach, FL
Minor in Applied Mathematics

WORK EXPERIENCE

U.S. NAVAL RESEARCH LABORATORY **MAY 2023 – AUG 2023**
Naval Research Enterprise Internship Program (NREIP) Intern Stennis Space Center, MS

- Conducted assessment of remote-sensing technologies estimating ocean bubble depth through the analysis of satellite data.
- Discovered correlation coefficients between bubble depth and wave height to be as high as 0.6 through the analysis of CALIPSO satellite data. This confirms the feasibility of satellite-based analysis.
- Applied machine learning techniques to predict ocean ambient noise, demonstrating proficiency in data analysis and computational methods and outperforming previous Navy protocol.

COLLEGE OF ENGINEERING TUTORING CENTER **JAN 2024 – PRESENT**
Undergraduate Tutor Daytona Beach, FL

- Provided comprehensive support to over 500 students through in-person meetings sharing knowledge of materials science topics.
- Collaborated with fellow tutors to create a repository of material to facilitate student understanding and engagement.

EMBRY-RIDDLE AERONAUTICAL UNIVERSITY **JAN 2023 – JAN 2024**
Undergraduate Teaching Assistant Daytona Beach, FL

- Mentored 30-50 students in technical writing assignments and safe power tool use; aided in disassembly and reassembly of internal combustion engines to facilitate knowledge of their operation.
- Supported grading of 60+ students in 3 upper-level mathematics courses with accurate assessment and constructive feedback.

EAGLE FLIGHT RESEARCH CENTER **JUN 2022 – JAN 2023**
Research Assistant Daytona Beach, FL

- Coordinated with a 10-person team to design and build a flight simulator for an emerging electric vertical take-off and landing urban air mobility company (eVTOL–UAM).
- Pioneered and fabricated quickly interchangeable mounting system for inceptors needed to support simulator piloting experience.
- Fronted procurement of parts necessary for completion of simulator using trade studies and cost analysis, ensuring project deadlines.

PROJECT EXPERIENCE

PROJECT GLADOS **JUN 2023 – PRESENT**
Test and GNC Engineer, Group Project Daytona Beach, FL

- Spearheading orbital injection and analysis of a mock CubeSat design project; utilized STK 12 and STK's Space Environment and Effects Tool (SEET) to evaluate and control the thermal and radiation effects of the on-orbit spacecraft.
- Collaborating with team members on trade studies, operational requirements, and failure mode troubleshooting with risk analyses.
- Performing hand calculations to determine orbit period and ground track to ensure full coverage of the geostationary (GEO) belt.

HIGH-POWERED ROCKETRY **JUN 2023 – MAR 2024**
Personal Project Daytona Beach, FL

- Orchestrated the assembly and launch of a high-powered rocket, gaining insights into complex vehicle assembly and design.
- Implementing and strictly adhering to the National Association of Rocketry Safety Code, ensuring the use of certified materials and rocket motors, and maintaining safety during all phases of the project.

LEADERSHIP & INVOLVEMENT

COMPUTATIONAL FLUID DYNAMICS **JUN 2022 – PRESENT**
Co-Lead, Research Project Daytona Beach, FL

- Appointed student manager of the ERAU Wave Research Lab; Used MS Office Suite and Teams to organize meetings, research documentation, and coordinate tasks with members.
- Computational MATLAB Team Co-Lead: Implementing MATLAB code to solve highly complex Bessel and Hankel functions to research the motion of a floe caused by interactions with ocean waves.

SKILLS

CERTIFICATIONS: STK 12 – Level 1, NAR HPR Level 1
HARDWARE: Soldering | Wiring | Welding | Power Tools
SOFTWARE: Catia V5 | MATLAB | Simulink | Python | C++ | FEMAP | FORTRAN | Microsoft Office Suite