Gabe **Carvalho**

✉ gabecar3@gmail.com | 📱 305.331.3831 | 📍 Sanford, FL | 🔗 linkedin.com/in/gabecar3/

Education

Embry-Riddle Aeronautical University   *Daytona Beach, FL*
BACHELOR OF SCIENCE IN AEROSPACE ENGINEERING   *Aug 2020 – Dec 2023*
GPA: 3.7

Experience

Spacecraft & Payload Ops. and Test Engineer   *Kennedy Space Center, FL*
JACOBS/AMENTUM - COMET   *January 2024 – Present*
- Supporting ISS commercial resupply and research missions by leading spacecraft and payload processing operations. Example customer payloads include CYGNUS, CODEX, and NORS.
- Supporting Orion landing and recovery operations as well as leading V&V of recovery support equipment and de-servicing operations. Interfacing with DoD, OEM, and NASA personnel to meet inter-agency and Artemis II mission requirements.
- Supported Europa Clipper processing by providing support to hypergolic fueling under the Launch Service Provider directive.

Senior Engineering Intern   *Thomasville, GA*
PURSUIT AEROSPACE   *May 2023 – July 2023*
- Worked with senior engineers and management in the development of a new department with the goal of manufacturing endmills on an ANCA CNC 5-axis grinder to reduce tooling expenses.
- Lead engineer for the group of 7 engineering interns. Responsibilities included providing guidance on projects, planning timelines, and interfacing with management to ensure success.

Skills

CAD/CAM Software: Siemens NX (CAD & CAM), CATIA V5 & V6, Fusion360 (CAD, CAM, & CFD), Solidworks
Manufacturing: 3-axis & 5-axis CNC Mills, 3D Printing (FDM & SLA), Sewing
Other Software: Excel VBA, MATLAB, NASTRAN FEMAP, Windchill PLM, Solumina, Maximo

Projects

Artemis II - Orion C-17 Transportation   *Solumina, Requirements Planning, V&V*

LED THE MODIFICATION OF THE ORION RECOVERY CRADLE ASSEMBLY (ORCA) TO MEET U.S. AIR FORCE REQUIREMENTS FOR HAZARDOUS TRANSPORT ABOARD A C-17. DEVELOPED THE REQUIREMENTS MATRIX AND OVERSAW V&V OPERATIONS TO ENSURE COMPLIANCE.

Vee-Tail Static Stability Analysis   *CFD & Vortex Lattice Simulation*

DERIVED LONGITUDINAL, DIRECTIONAL, AND LATERAL STATIC STABILITY EQUATIONS FOR VEE-TAIL EMPENNAGE CONFIGURATION. VORTEX LATTICE CFD DEMONSTRATED AGREEMENT WITHIN ±5% SUPPORTING THE VALIDITY OF THE EQUATIONS.

Aircraft Structural Detail Design   *FEMAP, MATLAB, & Excel VBA*

LEAD A TEAM OF 6 ENGINEERS IN THE DETAIL DESIGN OF THE WING STRUCTURE OF AN UNMANNED FIREFIGHTING DRONE FOLLOWING 14CFR PART 25 REGULATIONS WITH AN EMPHASIS IN EXPLORING THE EFFECTS OF G-JUMP AND CONDUCTING DAMAGE TOLERANCE ANALYSIS TO DETERMINE PROPER MRO INTERVALS.

Certifications and Achievements

March, 2025	**Lean Six Sigma - Green Belt**, Obtained White belt, Yellow belt, and Green Belt certifications. Completed Black Belt exam but did not have company support to undertake a project to officially earn the certification.	*The Council for Six Sigma Certification*
May, 2023	**Kaizen**, Trained by Sensei Chihiro Nakao, in Kaizen, 5S, and continuous improvement practices.	*Shingijutsu USA*
Spring/Fall, 2023	**Member of Student & Industry Advisory Board**, Advised the Aerospace Engineering department on academic and industry topics such as student concerns, curriculum, and the future of the industry.	*ERAU*