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), Machine Sewing
Other Software: Excel VBA, MATLAB, NASTRAN FEMAP, Windchill PLM, Solumina, Maximo

Projects

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.

Preliminary Aircraft Design — *Excel VBA & Vortex Lattice Simulation*

Completed preliminary design for a 14CFR Part 23 two seat, twin turbojet, aerobatic aircraft to meet required performance and regulatory constraints.

Certifications and Achievements

March, 2025	**Lean Six Sigma - Black Belt, Level I**, Obtained White belt, Yellow belt, and Green Belt certifications. Completed Black Belt exam but did not have company support to undertake a project to obtain Level II 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*