

# Gabe Carvalho

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## Experience

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### Manufacturing Engineer II - Secret Clearance

LOCKHEED-MARTIN MFC

- Supporting F-35 EOTS window new assembly and remanufacturing of field units.
- Leading process improvement studies to reduce defects in Ti-CFRP bonds.
- Key Skills: Windchill, LSS, Optics Manufacturing, CREO, Process Planning, Problem Solving, & AS9100/ISO 9001.

Orlando, FL

November 2025 – Present

### Spacecraft & Payload Mechanical Engineer II

Kennedy Space Center, FL

January 2024 – October 2025

AMENTUM - COMET

- Led TPS Problem Resolution Team: Addressed non-conformances and developed processing procedures for Orion and ICPS TCS/TPS.
- Led V&V operations for Orion recovery support equipment and de-servicing processes.
- Key Skills: Task Team Leader, Interagency Communication, Mentorship, Problem Solving, & Project Management.

### Senior Manufacturing Engineering Intern

Thomasville, GA

May 2023 – July 2023

PURSUIT AEROSPACE

- Designed test procedures and requirements to certify custom-manufactured endmills for turbomachinery production.
- Led a team of 7 interns, managing timelines and reporting to executive leadership.
- Key Skills: Kaizen, 5S, Project Management, Leadership, CAD, CAM, GD&T, & Process Planning.

## Education

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### Embry-Riddle Aeronautical University

Daytona Beach, FL

BACHELOR OF SCIENCE IN AEROSPACE ENGINEERING

GPA: 3.7

Aug 2020 – Dec 2023

## Projects

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### Orion C-17 Transportation

Testing, Project Management

LED MODIFICATION OF ORION RECOVERY CRADLE ASSEMBLY (ORCA) TO MEET USAF HAZARDOUS TRANSPORT STANDARDS. DEVELOPED REQUIREMENTS MATRIX, DESIGNED AND DIRECTED V&V OPERATIONS.

### Underway Recovery Training 12

Interagency Coordination,  
Leadership

PARTICIPATED IN ORION CREW MODULE RECOVERY TRAINING AND SIMULATIONS ABOARD THE USS SOMERSET. LED POST-MISSION DECONFIGURATION AND RECOVERY EQUIPMENT TRANSPORT EFFORTS.

### Vee-Tail Static Stability Analysis - Undergraduate Research

CFD, Vortex Lattice Analysis

DERIVED LONGITUDINAL, DIRECTIONAL, AND LATERAL STATIC STABILITY EQUATIONS FOR VEE-TAIL EMPENNAGE. VALIDATED HAND CALCULATIONS WITHIN  $\pm 5\%$  THROUGH VORTEX LATTICE ANALYSIS AND CFD.

### Aircraft Structural Detail Design - Senior Design Project

FEMAP, MATLAB, Excel VBA

LED A 6-PERSON TEAM IN WING STRUCTURE DESIGN FOR AN UNMANNED FIREFIGHTING DRONE. CONDUCTED AIRWORTHINESS, LOADING, AND DAMAGE TOLERANCE ANALYSIS PER 14 CFR PART 25.

## Certifications and Achievements

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June, 2025 **Lean Six Sigma - Black Belt I**, Obtained LSS Green Belt

CSSC

May, 2023 **Kaizen**, Trained by Sensei Chihiro Nakao, in Kaizen, 5S, and continuous improvement practices.

Shingijutsu USA

## Skills

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**CAD/CAM Software:** Siemens NX, CATIA V5 & V6, Solidworks

**Manufacturing:** 5-axis CNC Machining, 3D Printing (FDM & SLA), Sewing, GD&T

**Other/Software:** Excel VBA, MATLAB, NASTRAN FEMAP, Windchill, Solumina