

Gabriel Duarte Rengifo

+1 (561) 617-3956 | Boca Raton, FL | US Citizen | Private Pilot | gduarter@purdue.edu
[linkedin.com/in/gabrielduarter](https://www.linkedin.com/in/gabrielduarter) | gabriel.duarterengifo.com

EDUCATION

Purdue University | 3.44 / 4.0

West Lafayette, IN

BS Aeronautical and Astronautical Engineering

Certificate in Entrepreneurship and Innovation

Aug 2025 — Expected May 2029

ENGINEERING EXPERIENCE

Gulfstream Aerospace

May 2026 — July 2026

Additive Manufacturing Lab Test Intern

Savannah, GA

- Designed 7 custom tooling projects in CATIA applying DFM/DFA principles, owning each from concept through internal customer review to delivery; 2 were adopted into production on delivery, one clearing a 2-month work backlog and pulling a shipment roughly 1 month ahead of schedule
- Operated SLA, FDM, and SLS additive manufacturing machines (Formlabs, Bambu, Markforged, Stratasys, EOS) to produce shop aids and training tools for internal production
- Redesigned lab floor plan to open dedicated space for composite layup work; performed preventive maintenance on AM equipment

Presidential Aviation

June 2024 — July 2024

Summer Intern

Fort Lauderdale, FL

- Audited and reconciled two years of maintenance records for 19 clients against FAA airworthiness requirements, identifying documentation errors across a 20+ aircraft fleet to ensure planes remained in service and airworthy.
- Delivered a findings report to the maintenance department recommending consolidation of overlapping maintenance events to reduce aircraft downtime and automation of the manual record-entry steps, causing the documented errors.

Purdue Space Program (PSP)

Aug 2025 — Present

Active Controls Propulsion & High Power Rocketry Subteam Member

West Lafayette, IN

- Designed the actuator mounting scheme for a gimbaled thrust vector control system on PSP's Tadpole rocket; wrote a MATLAB tool evaluating 250+ candidate mount point sets against actuator stroke and max torque constraints using engine profile geometry extracted from NX CAD, narrowing to 3 configurations; the selected configuration is now in final design and fabrication
- Building a Level 1 and Level 2 high-power rocket (kit build, OpenRocket simulation, team mentorship) toward NAR/Tripoli certification as part of PSP's high power rocketry sub team

LEADERSHIP EXPERIENCE

Humanoid Robot Club (HRC)

Aug 2025 — Present

President

West Lafayette, IN

- Leading a 1,500+ member organization across 3 technical sub teams, setting club strategy, sponsor relationships, and technical project direction
- As President of StarkHacks, an HRC program, ran operations for a 36-hour in-person hardware hackathon with 750 attendees, the largest by attendance found in public records; owned venue contracting at the Purdue Armory, catering, AV/production, dedicated participant Wi-Fi infrastructure, and parking logistics
- Designed finger linkages, enclosure, and actuator/servo wiring for a fully articulated robotic hand; selected linkage actuation over cable-driven for grip strength and field repairability, delivering 3 CAD iterations and 2 assembled prototypes, with the current prototype verified lifting 2 lb payloads in ongoing testing
- Presented research at Purdue's fall and spring undergraduate research conferences, listed under "Presentations with Distinction" at both

PlayAR

Oct 2023 — June 2026

Co-Founder

Fort Lauderdale, FL

- Co-founded PlayAR, an XR football training platform on Meta Quest Pro letting players run reps against virtual opponents in first-person; owned product direction and worked alongside the dev team on animation and movement UI, translating coach feedback into build requirements
- Piloted the prototype with our high school football team, running live play-throws against virtual players; coaches responded positively, with several continuing to integrate AR tools into practice since
- Advanced to the Diamond Challenge semifinal round as a top-600 team (2024) and to the Limitless Global Summit as a top-50 team (2025)

RELEVANT COURSEWORK

AAE 251: Intro to Aerospace Design

- Applied aerodynamics and orbital mechanics fundamentals via MATLAB problem sets and pitot tube analysis; collaborated in a 6-person team on conceptual design of a full aerospace system

MFET 163: Foundations in Geometric Modeling & Data Management

- Utilized NX and a PDM system (Teamcenter) to model parts, manage variants via expressions/design tables, and support an Engineering Change Process (ECOs) through a simulated industry PLM workflow

SKILLS

- Software:** Siemens NX, CATIA V5, Fusion 360, SolidWorks, MATLAB, Onshape, Teamcenter, AutoCAD, OpenRocket
- Technical Skills:** Computer Aided Design (CAD), Mechanical Design, Additive Manufacturing, SLA/SLS/FDM, Computer Numerical Control (CNC), Laser Cutting, DFM/DFA
- Programming Languages:** Python, Java, C
- Certifications:** Part 61 Private Pilot; 55 Flight Hours; Airplane Single Engine Land
- Languages:** English, Spanish