Christian Ibarra

Arlington, TX — U.S. Citizen
(956) 605-5385 mr.christianibarra@gmail.com linkedin.com/in/ibarra-christian

Skills

Programming: Python, MATLAB, C, C++, Bash
Software: Simulink, Altium Designer, SolidWorks, LabVIEW, ANSYS Fluent, Fusion 360
Technical: Linux, Windows, Git, GitHub, Basic computer networking, Cisco IOS, LaTeX, Technical Writing, Microsoft Office, Google Workspace, Fluent Spanish

Education

University of Texas at Arlington **Expected Graduation: May 2027**
Bachelor of Science in Aerospace Engineering
Minors in Mechanical Engineering and Space Systems Engineering

South Texas College **Graduated: May 2023**
Associate of Science in Engineering

Projects & Research

Project BlueSpear **Feb 2026 – Present**
Avionics Lead – AIAA at UTA

- Lead a **5-member avionics/CDH team** for a student **space launch vehicle**, supporting early subsystem design, component trade studies, and integration planning for flight-computer and sensor systems.
- Develop subsystem documentation, interface definitions, and **hazard/risk assessments** to support reliable design, integration, testing, and troubleshooting of avionics-related systems.

CubeSat Feasibility Study **Jan 2025 – Dec 2025**
AIAA Project – Communications Team

- Translated mission intent into preliminary communications requirements, including downlink data volume and pass timing, to support subsystem planning.
- Conducted a structured trade study of **COTS radios and antennas** using vendor datasheets and documented assumptions, interfaces, and selection rationale.

L1 High-Power Rocket Project **Nov 2025**
Personal Project

- Designed and built a **Level 1 high-power rocket**, using **CAD** and **OpenRocket** to assess stability margin, configuration, and overall vehicle design before fabrication.
- Completed component selection, mechanical assembly, and pre-flight fit/configuration checks to prepare the vehicle for safe and reliable launch operations.

Nanoscience Materials Laboratory **May 2025 – Sep 2025**
Undergraduate Researcher – University of Texas at Arlington

- Fabricated carbon-based and graphene-reinforced polymer systems, performed **tensile testing** and data reduction, and supported development of experimental materials including graphene oxide and hydrogels.
- Developed and tested an **antenna experiment** to evaluate **radio-frequency signal attenuation** through carbon composite materials while maintaining detailed lab records and technical figures for research documentation.

Spacecraft Attitude Dynamics and Control **Jan 2025 – May 2025**
MAE 3307 Course Projects

- Developed **MATLAB and Simulink** models for spacecraft orbital propagation, attitude dynamics, and rendezvous analysis.
- Built a quaternion-based **6-DOF spacecraft simulation** and generated technical plots to evaluate translational and rotational spacecraft behavior.

Leadership

American Institute of Aeronautics and Astronautics (AIAA) at UTA **Feb 2024 – Present**
Professional Events Coordinator / Officer

- Coordinate professional speaker events for a **530+ member** aerospace organization and collaborate across a **20-officer leadership team** to support industry engagement and student professional development.

South Texas College Cybersecurity Club **Jan 2018 – Mar 2020**
President

- Led a student cybersecurity club supporting **4 teams** through **CyberPatriot** national competitions, working with **Windows, Linux, Cisco IOS**, and basic networking concepts.
- Organized preparation for **CyberPatriot** and **Capture the Flag (CTF)** events, building hands-on troubleshooting, system administration, and networking experience.