

JUAN IGNACIO OGDON

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PROFILE

Aerospace Engineering student (6th year, expected graduation Dec 2026) at Universidad Tecnológica Nacional. Enthusiastic and fast learner with proven adaptability in diverse technical environments. Experienced in additive manufacturing and design, spacecraft mechanisms, rocket simulation, and aerospace research projects. Strong communicator with international exposure, aiming to contribute to the development of advanced space systems.

EDUCATION

- Universidad Tecnológica Nacional (UTN)** Expected Dec 2026
B.Sc. Aerospace Engineering (6-year degree) — GPA: 8.0/10 Buenos Aires, Argentina
- Don Bosco High School** Dec 2020
Diploma in Economics and Administration — GPA: 9.24/10 San Carlos de Bariloche, Argentina

EXPERIENCE

- LIA Aerospace** 2024 – 2025
Intern — Mechanical Design and Systems Analysis Buenos Aires, Argentina
 - Designed and analyzed propulsion and structural subsystems with emphasis on manufacturability and lightweight design.
 - Implemented CAD-driven design iterations using 3D printing to rapidly test and validate mechanical behavior.
 - Contributed to data-driven performance assessments and cross-functional design reviews.
- Grupo de Tecnología Aeroespacial, UTN** 2022 – 2024
Research Student — Mechanisms and Manufacturing Buenos Aires, Argentina
 - Developed and tested a CubeSat solar panel release mechanism with integrated printed components and minimal part count.
 - Optimized design geometry for FDM additive manufacturing and mechanical robustness.
 - Presented work internationally, earning **Best Presentation in Satellite Technology (IAA 2024)**.
- Teaching Assistant — Theoretical Aerodynamics** 2025 – Present
Focused on visualization and animations.
 - Assisted teaching of potential flow theory, thin airfoil theory, and compressible aerodynamics.

SELECTED PROJECTS

- Artificial Intelligence Control System** — Developed a neural network, environment and evolution dynamics for an inverted pendulum system.
- CubeSat Appendage Release System** — Designed and tested a deployable mechanism integrating 3D-printed structures and thermal-actuated release.
- Rocket Attitude Control Simulation** — Built a Simulink model of a thrust vector-controlled rocket for control algorithm validation.

SKILLS

- Additive Manufacturing:** FDM 3D Printing, design for printability, support optimization, material testing.
- Mechanical Design:** CAD modeling, fixture and mechanism design, structural validation, rapid prototyping.
- Analysis & Simulation:** FEA, CFD (OpenFOAM), MATLAB, Simulink, Mathematica, Python.
- Collaboration:** Jira, Confluence, team-based engineering workflows.
- Soft Skills:** Curious, creative, quick learner, resilient under pressure, and passionate about building the future of spaceflight.

AWARDS

- Best Presentation Award in Satellite Technology — IAA Latin American Small Satellite Conference (2024).

LANGUAGES

- Spanish: Native — English: Bilingual (C1 certified)