
Turin, Italy

LinkedIn

Portfolio

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## SKILLS

**Programming Languages:**

C#, Python, MATLAB.

**Engineering Software & Skills:**

MATLAB, MATLAB Simulink, Ansys, MSC Patran-Nastran, MSC Adams, Altair Inspire, OpenVSP, AVL, XFOIL, SolidWorks, Fusion360, Office Suite, Word, Excel, Power Point.

GNC, AOCS, orbital mechanics, CAD, CFD, structural optimizations, multibody sims.

**Game Development:**

Unity, GitHub, FMOD, Blender, Jira, Visual Studio, Notion, Photoshop.

**Web Development:**

HTML, CSS, Bootstrap, Flask, Jinja.

**Soft Skills:**

organized, autonomous, flexible, time management, planning, critical thinking, meeting deadlines, goal setting, continuous learner.

# DANIELE GALATI

## LANGUAGES

**Italian:** native
**English:** C1 - Cambridge FIRST certification

## EXPERIENCE

### AIKO Space

Master Thesis Internship ▪ [Feb 2026 – Present]

Developing an XR mission design tool for Earth-Moon trajectories. Focusing on high performance C# code, writing rigorous technical documentation and integration into the company's workflow.

### Level Up Lab

Team Leader ▪ [Jul 2025 – Present]
Videogame Programmer ▪ [Jan 2024 – Jul 2025]

Currently leading the management of Level Up Lab, a student club of 60 people, overseeing recruitment, events organization and administrative processes.

Led the technical development of two complete videogames in Unity, gaining experience in long-term project management.

### Politecnico di Torino

Academic Tutor (LAG) ▪ [Mar 2025 – Jul 2025]
Academic Tutor (CS) ▪ [Oct 2024 – Feb 2025]

Supported teachers in laboratory activities by helping students to understand theoretical and practical concepts of Python (Computer Science course) and linear algebra (Linear Algebra and Geometry).

## EDUCATION

### Master's degree in aerospace engineering

[Sep 2024 – Sep 2026*]
Politecnico di Torino · 107-110/110*

### Bachelor's degree in aerospace engineering

[Sep 2021 – Jul 2024]
Politecnico di Torino · 107/110

*expected graduation period and final grade

## RELEVANT PROJECTS

### XR Space Mission Design & Real-time Telemetry

AIKO Space
Master Thesis
[Feb 2026 – Sep 2026]

**DESCRIPTION**

Currently developing a cross-platform XR application in Unity for interactive design and analysis of satellite trajectories within the Earth-Moon system.

- Custom C# numerical propagator for CR3BP, balancing physics fidelity and performance requirements needed for XR applications.
- Implementing a spatial UI to monitor state vectors and telemetry data.
- Integrating Human-in-the-Loop design capabilities, by allowing users to manipulate orbital parameters and delta-V vectors with instantaneous trajectory repropagation.
- Multi-platform deployment, with focus on optimization for Meta Quest 3 passthrough mode to prevent motion sickness.

### 6-DOF Spacecraft Simulator for RVD Maneuver

Politecnico di Torino
University Project
[Oct 2025 – Jan 2026]

Implementation in MATLAB Simulink of an orbital simulator for a complete AOCS used in a sequence of RVD maneuvers.

- Implemented Hill and Euler equations for dynamics and kinematics.
- Implemented free drift, Hohmann transfer, radial boost, cone approach (straight line V-bar approach and APF) maneuvers in a full rendezvous sequence.
- Considered disturbances such as solar pressure, gravity gradient, J2 effect.
- Used closed-loop control laws with LQR, SMC and PID controllers.
- Implemented PWPF modulator for thrusters and saturation for reaction wheels.
- Data visualization and analysis, with particular attention to the best performing control strategies.