Gonçalo Pinho

• goliveirapinho@tecnico.ulisboa.pt • Milan • www.linkedin.com/in/gonçalo-pinho/

Experience

Temporary research fellowship at Politecnico di Milano in the DART group:

Member of the Mission Analysis Team for the RAMSES Mission – full-time   February 2024 – May 2024

- Define the mission requirements of the RAMSES mission while also exploring the research space for low-thrust transfers using a tailored algorithm and analyzing the several candidate trajectories;

Core member of aerospace engineering students of Técnico – AeroTéc

Member at Rocket Experiment Division (RED) - over 4 hours a week   October 2020 – September 2021

- Working within a project with over 80 persons, responsible for the control and simulation of a rocket;

Member of AeroTéc's executive board – over 3 hours a week   September 2020 - September 2021

- Managing AeroTéc's image as well as its internal and external relations;

Member at Semana Aeroespacial (SA) – over 4 hours a week   September 2019 – September 2021

- Working in a team for contacting sponsors and speakers to take part of an annual event.

Member of Polispace – the first space association of Politecnico di Milano. Currently, I worked as:

Member of MEEVA (Polispace) – over 4 hours a week   October 2022 – December 2023

- Working in a team in for the development of a telemetry transmission/reception system.

Education

Bachelor's in aerospace engineering at IST (Instituto Superior Técnico).   September 2018 – June 2021

Average: 16 (0-20)

Master's degree in Space Engineering at Politécnico di Milano.   September 2021 – December 2023

Average: 101 (0-110)

Master Thesis Work: Evaluating FPGA-Based Convex Optimization Methods for Onboard Low-Thrust Trajectory Guidance

- **Summary**: the work investigated the aspects to consider when deploying in a reconfigurable computing hardware, as an FPGA, an onboard guidance algorithm that employs convex approaches to minimum fuel space trajectory problems.

Skills

- Experience in Matlab, Simulink, Python and CAD due to the development of several university projects;
- Experience in C/C++, Vivado and Vitis HLS due to the work developed during the master thesis;
- Experience in technical writing and editing skills (LaTex).

Interests

- Played professional basketball for 6 years and joined my university's basketball team;
- Performed and was part of a theatre group for over 1 year;
- Currently learning how to play piano and get to know about music theory overall.

Language competencies

- Portuguese: native language;
- English: fluent (speaking, reading and writing).
- Italian: currently learning (B1 level).