

# Leonardo Mouta Pereira Pinheiro

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## EDUCATION

### Carnegie Mellon University

Master of Science in Robotic Systems Development

Pittsburgh, PA

May 2025

### ISAE-SUPAERO

Master of Science in Engineering - Aerospace

Toulouse, France

Dec 2022

### Aeronautics Institute of Technology (ITA)

Bachelor of Science in Aerospace Engineering | Minor Degree in Engineering Physics

Sao Jose dos Campos, Brazil

Dec 2022

## EXPERIENCE

### JPMorgan Chase & Co. AI Maker Space

Technical Assistant

Pittsburgh, PA

Sep 2023 - Present

- Supervised graduate and undergraduate students who were using the AI maker space, assisting them in operating various kinds of robots. Also responsible for setting up, operating and maintaining the space's drones.

### Colegio Olimpo (Middle and High School)

Physics Teacher

Brasilia, Brazil

Feb 2023 - Aug 2023

- Taught physics to the senior high school class that was focused on the admission exams for the Aeronautics Institute of Technology and the Military Institute of Engineering, the top engineering universities in Brazil.

### Laboratory for Analysis and Architecture of Systems (LAAS-CNRS)

Research Intern

Toulouse, France

Apr 2022 - Sep 2022

- Implemented novel contact-based RRT planning algorithms for swarms of drones carrying a slung load, resulting in a 73% success rate for the scenarios tested.

### BOCOM BBM Credit Bank

Quant Trading/Macroeconomics Summer Intern

Rio de Janeiro, Brazil

Jan 2019 - Mar 2019

- Developed a python package for quantitative trading that enabled the bank to convert bonds tied to different indexes, thus solving a longtime need.

### Aeronautics Institute of Technology (ITA)

Teaching Assistant

Sao Jose dos Campos, Brazil

Jul 2018 - Jul 2020

### Reserve Officer Training Corps - Brazilian Air Force

Officer Candidate

Sao Jose dos Campos, Brazil

Jan 2017 - Nov 2017

## TECHNICAL PROJECTS

### Dassault Aviation/ISAE-SUPAERO

Joint Research Project Member

Toulouse France

Aug 2021 - Mar 2022

- Joined a team of students devising metrics on how to best assess flight dynamic quality for multirotor UAVs under various sensor loads, which are to be used by Dassault Aviation for automated plane maintenance.

### Department of Complex Systems Engineering - ISAE-SUPAERO

Student Researcher

Toulouse, France

Mar 2021 - Jun 2021

- Wrote python programs for testing novel ACAS X technologies in order to determine horizontal resolutions for quadcopters in colliding paths, resulting in over 99% success rate in simulations.

## SKILLS SUMMARY

**Programming:** Python, C/C++, ROS/Gazebo, Arduino, Matlab/Simulink, Java, Mathematica, R

**Tools/Skills:** Linux, Windows, PX4 Autopilot, Docker, Git/Github, MS Office, LaTeX, SOLIDWORKS, Cybersecurity

## CERTIFICATIONS

### Junior Penetration Tester

Issued by TryHackMe

Aug 2023

### Certified SOLIDWORKS Associate (CSWA) in Mechanical Design

Issued by Dassault Systemes

Jul 2023

## ACTIVITIES

### Entrepreneurship League eITA - Aeronautics Institute of Technology (ITA)

Co-founder and Director

Sao Jose dos Campos, Brazil

Apr 2017 - Jan 2018

- Organized outreach events, such as "Startup Day", which gathered 7 of the largest Brazilian startups for an exclusive all-day meet, and "Starting Point Challenge", a national startup competition in collaboration with four other universities.

## HONORS AND AWARDS

**CAPES-Brafitec Scholarship:** Government scholarship awarded to exceptional Brazilian students who were chosen to pursue double degree programs in France.

**Bahia Asset Management Scholarship:** Grade-based stipend awarded to selected students at prestigious Brazilian universities who were chosen as teaching assistants.

**Exemplary Student Award - Reserve Officer's Training Corps:** Chosen by the instructor staff as exemplary student for my ROTC class year.