📇 PROFILE

Enterprising, passionate and curious about l**ife, space engineering, astrodynamics** and focusing my career in **space missions**. Currently doing an internship in Toulouse on **GNC** design for **Rendezvous** operations along a **NRHO**

🎓 EDUCATION

Oct 2019 – Present Rome, Italy	**Admission and attendance of SSAS (School for Advanced Studies Sapienza)** Attendance of different interdisciplinary courses and projects concerning both humanistic and scientific fields, such as **"Bioinformatics"** and **"The Cities: Innovation, resources and development"** *University of Roma " La Sapienza "*
Sep 2019 – Present Rome, Italy	**Master's degree in Space and Astronautical Engineering** • Average Grade: **28.92/30,** specialization on **Space Missions** • Focus on **Trajectory Optimization**, **Launchers mechanics**, **Robotics**, **Non-linear control techniques**, **Orbit determination**, **GNC** and **ADCS**. *University of Roma " La Sapienza "*
Sep 2016 – Jul 2019 Rome, Italy	**Bachelor's degree in Aerospace Engineering (110/110 with honors)** • Average Grade: **28.62/30** • Thesis on the **elaboration of an innovative and efficient algorithm** to solve systems of non-linear equations with aerospace applications • Participation in the **Aerospace Engineering Excellence Course,** attending additional course as **"Optical and quantum physics"** and **"Advanced differential mathematics"** *University of Roma " La Sapienza "*
Sep 2011 – Jul 2016 Rome, Italy	**High school diploma (100/100)** *Louis Pasteur High School*

💼 PROFESSIONAL EXPERIENCE

May 2021 – Present Rome, Italy	**Data scientist** Research Project for the SSAS degree thesis about: " Efficient models to predict **solar irradiance fluctuations** on the hidden face of the Sun during superior solar conjunction experiments of **BepiColombo** " • Focus on the **elaboration of BepiColombo mission data**, using **IDL** *INAF: National Institute of Astrophysics*
Mar 2021 – Present Toulouse, France	**GNC Engineering Internship** Erasmus Research Project for the master degree thesis about: "Astrodynamics in circular restricted three body problem : **guidance, navigation and control** design for final approach **Rendezvous** operations about cislunar **Near Rectilinear Halo Orbits** ". • Focus on the **comparison of relative models** respect to a n-body one and **dispersion analysis** to find the best scenario for the close Rendezvous, using **Python and Matlab** *Space Advance Concept Laboratory, ISAE-SUPAERO: Institut Supérieur de l'Aéronautique et de l'Espace*

Sep 2016 – Jul 2017	**Secretary of SASA (Sapienza Aerospace Student Association)**
Rome, Italy	Organization of collective activities like astronomical meetings correlated to **astronomical observations and astrophotography**
	University of Roma " La Sapienza "

🏅 AWARDS

May 2019	**1st place: 8° Sapienza Rocketry Challenge**
	Leader of the team: **organizing and coordinating** the work of simulation and construction of a **mini-rocket** that had to satisfy some specific mission requirements, using **Matlab**
	University of Roma " La Sapienza "

Jun 2017	**3rd place: CanSat design-build-launch competition for space-related topics**
	Member of the **flight software** team: developing of the program for the descent phase of a **glider**, using **Microsoft visual studio**
	University of Roma " La Sapienza "

📇 PUBLICATIONS

Jan 2021	**Geopolitics on moon rare earth elements**
	Analysis on **moon rare earth elements** availability, underling the economics and geopolitics aspect of having in loco resources useful for the energy supply of **moon space missions**
	Airpress-118

🧠 SKILLS

Knowledge of operating system ● ● ● ● ○
Windows, Linux

Knowledge of Microsoft Office package ● ● ● ● ●
Word, Power Point, Excel, Picture Manager, Publisher

Knowledge of Web Browsers ● ● ● ● ○
Explorer, Google Chrome, Firefox, Microsoft Edge

Programming ● ● ● ● ○
Matlab and Simulink

Programming ● ● ● ○ ○
C, R, IDL, Microsoft visual studio, Python

Knowledge of AI tools ● ● ● ○ ○
PDDL, PROLOG

Knowledge of bioinformatics tools ● ● ● ○ ○
Uniprot, HHpred, SWISS-MODEL, PDB, PyMol

Knowledge of informatic tools ● ● ● ● ○
LaTeX, GMAT

🌐 LANGUAGES

Italian ● ● ● ● ●
Mother tongue

English ● ● ● ● ○
C1

Français ● ● ○ ○ ○
A2

🎸 INTERESTS

- I have played in national and international futsal tournaments. I cycle regularly and jog occasionally.

- I have a great passion for cooking and I like to surprise my family creating new recipes for them.

- I love Mickey and Donald Duck comics.