

# **COSIMO CASOTTO**

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My website: <a href="https://www.cosimolikesrockets.com/">https://www.cosimolikesrockets.com/</a>

#### **EDUCATION**

GEORGIA INSTITUTE OF TECHNOLOGY, Atlanta, GA | Master's Degree in Aerospace Engineering

Jan 2024 - Present

- · GPA: 4.0
- · Classes: Combustion, Computational Fluid Dynamics, Aerospace Propulsion Lab, Kinetics and Thermodynamics of Gases

UNIVERSITY OF PADOVA, Padova, Italy | Bachelor's Degree in Aerospace Engineering

Sep 2020 - Sep 2023

- · Graduation Grade: 110 / 110
- · Final Thesis: "Chemical Aspects of Hybrid Rocket Propulsion", Passed with 30 cum Laude. Honor Society

#### PROFESSIONAL EXPERIENCE

INTERN at Rocket Factory Augsburg, German Startup in Augsburg, Germany

May 2024 - Aug 2024

- · Propulsion Production Engineering
- · Created a new revision of the engine assembly manual
- Reviewed traveler steps of 3D printed engine components
- Developed engine checkout procedures for leak checks, P&ID checks, and engine sensors
- · Performed engine checkouts for RFA's first launch
- · Investigated alternatives for U-joints for future engine gimbaling systems
- · Performed hydrostatic and pressure-drop testing of engine components

TEST ENGINEER at Technology for Propulsion and Innovation, Italian Startup in Monselice, Italy

Jul 2023 - Dec 2023

- · Designed graphite nozzle to be tested on catalytic section of 7kN hybrid engine
- Researched materials and sized screws for hybrid engine
- Designed a spring-loaded mold to cast fiberglass composite blocks for in-house thermal protection manufacturing
- · Analyzed multi-channel data acquisition boxes for tests conducted outside the company's facilities
- Conducted tests on 1 kN and 7 kN hybrid engines to investigate the performance of different materials (nozzles and thermal protection)

## **ROCKETRY CLUB EXPERIENCE**

MEMBER of YELLOW JACKETS SPACE PROGRAM at Georgia Institute of Technology, Atlanta, GA

Jan 2024 - May 2024

- Program: Sounding Rocket with Liquid Propulsion System
- Team: Propulsion
- · Testing and Optimization of Liquid Oxygen / Jet-A engine with ablative cooling

# CO-FOUNDER of THRUST STUDENT PROJECT at University of Padova, Italy

Oct 2021 - Dec 2023

- · Program: Design and manufacturing of SFRI: Sounding rocket with hybrid propulsion system
- · Led the testing team
- · Tasks: Design of test stand and gas cylinder rotator, Piping and Instrumentation Diagrams, Test Procedures, Test Execution
- Awards: Most innovative project at Italian Space Day 2022

# **RESEARCH**

HIGH-PERFORMANCE COMPUTING LAB, at Georgia Institute of Technology, Atlanta, GA

Nov 2024 - Present

- Large Eddy Simulations of  $CO_2$  mixing layers under ideal gas conditions
  - Working with CFD solver (RAPTOR)

# **SKILLS**

# SOFTWARE

- CAD (SolidWorks, Fusion 360, Autodesk Inventor, Siemens NX)
- · Piping and Instrumentation (PLANT 3D, Microsoft Visio)
- Coding (MATLAB, C++, python)
- 3D printing
- · CFD (PARAVIEW, Linux terminal, SLURM)

### DATA ACQUISITION

· National Instruments Compact RIO

### **PUBLIC SPEAKING**

- Invited speaker at Liceo Scientifico Ippolito Nievo in Padova, Italy in 2022 (Topic: Success After High School)
- Speaker for the THRUST student Project at SpaceMeetings Veneto 2023 in Venice, Italy (Topic: Thrust Student Project Pitch)

### **LANGUAGES**

English and Italian: Bilingual

· Spanish: Professional