

# Jonathan Tripelli

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## About me

I am a dynamic and passionate recent graduate aeronautical engineering eager to face new and stimulating challenges. I feel comfortable working in a team and sharing ideas to obtain the best result in every situation. During my studies at the university I developed a strong passion about the whole engineering world and in particular about everything related to technology and innovation.

## Education

### **"La Sapienza" University of Rome, Master's Degree in Aeronautical Engineering**

Sept. 2016 - Oct. 2019

Thesis title: "Experimental study of the flow field of Counter-Rotating Propellers with PIV technique." (Final grade: 108/110)

### **"Istituto Superior Técnico, Lisboa, Master's Degree in Aerospace Engineering"**

Sept. 2018 - Feb. 2019

I won a 6-months scholarship to study abroad with the Erasmus+ Project.

### **"La Sapienza" University of Rome, Bachelor's Degree in Aerospace Engineering**

Sept. 2012 - Mar. 2016

Thesis title: " Experimental analysis of the MAV aerodynamics performances, with different dimension of tailplane". (Final grade: 91/110)

### **LSS "A. Righi" High School, Rome, Italy**

Sept. 2007- July 2012

Secondary school diploma in scientific studies.

## Work experience and projects

### **Research Internship at CNR, Institute of Engineering of the Sea (INM ex INSEAN)**

May 2019 - Oct. 2019

Experimental study in a cavitation tunnel of the fluid dynamics of the flow generated by a counter-rotating propeller system (CRP).

- Realization of an experimental measurement campaign of the flow around the CRP propeller system using stereoscopic laser velocimetry (PIV ) in different operating conditions.
- Analysis of velocimetry data with particular regard to the interaction between the systems of vortices generated by each helix.

### **"Sapienza Flight Team", La Sapienza University of Rome**

Sept. 2016 - May 2017

Student competition "DBF" (Design Build Fly) organized by American Institute of Aeronautics and Astronautics (AIAA). This experience allowed me to increase the knowledge of CAD software and the dynamics of team working. I interacted with every aspect of the design and construction of the home-made model. The competition final phase consisted in three days flight test, held in Tucson (Az), with the top 100 international universities.

## Experimental activities

- Performed the analysis of several fluid dynamics field through different systems and equipments: HWA, LDA, PIV in a wind tunnel and in a cavitation tunnel.
- Developed static and dynamic analysis of different structures through the use of MSC Nastran and MSC Patran software.
- Performed modal analyses of different structures using specialized software and different equipments like modal hammers and electromagnetic shakers.

## Martial arts teacher

- Coached traditional martial arts to groups of 10-15 people aged between 15 and 65.
- Assisted coach of the academy in organizing the main fairs and events.

## Language skills

**Italian:** Native professional proficiency. **English:** Intermediate level.

## Technical skills

### • Software experience

Extensive use of MatLab and Simulink packages, Wolfram Mathematica, Latex. Academic level use of MSC Nastran, MSC Patran, XFLR5, CATIA, Gmsh. Proficient with Microsoft Office package for Microsoft Windows and Mac OS.

### • Lab machines

Experience with 3D printer and laser cutter.

## Interests

Amateur motorbike sport riding. Soccer and other team sports at a recreational level.