

PERSONAL INFORMATION

Giovanni Di Monaco

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Date of birth 12 December 1996 | **Nationality** Italian

EDUCATION

- Nov. 2018 - Mar. 2022 **Master of Science in Aeronautical Engineering** Grade: 110/110
Università degli studi di Roma "La Sapienza", Piazzale Aldo Moro 5, 00185 Rome Italy
- Thesis title: "Trajectory Reconstruction of Launch Vehicle in Atmospheric Flight"
 - Thesis abstract: The main objective is the development and validation of a complete trajectory reconstruction process based on post-flight data applicable to VEGA-type launchers
 - Relevant subjects: Control systems, Flight dynamics, Aeronautical structures, Aeroelasticity, Gas turbine engines, Gasdynamics, Computational fluid mechanics
- Sept. 2015 - Nov. 2018 **Bachelor of Science in Mechanical Engineering** Grade: 110/110
Università degli studi di Roma "La Sapienza", Piazzale Aldo Moro 5, 00185 Rome Italy
- Thesis title: Comportamento elastico delle sezioni composte costituite da materiali totalmente reagenti (tecniche di omogeneizzazione)
 - Relevant subjects: Rational mechanics, Solid mechanics, Mechanics applied to machinery, Machine components design, Energy systems, Probability and statistics
- Sept. 2010 - Jul. 2015 **Classical high-school diploma**
Liceo classico "Dante Alighieri", Via Ennio Quirino Visconti 13, 00193 Rome Italy

TRAINING

- Sept. 2019 - Feb. 2020 **Erasmus + Mobility Programme**
Instituto Superior Técnico, Av. Rovisco Pais, 1049-001 Lisbon Portugal
- Relevant subjects: Aerospace design, Laminated composite materials, Sensors and systems
- Sept. 2018 - Aug. 2019 **Sapienza flight team Project**
Università degli studi di Roma "La Sapienza", Piazzale Aldo Moro 5, 00185 Rome Italy
- Member of the sub-team who was in charge of the aircraft aerodynamics
 - Generation of unstructured meshes
 - Viscous and inviscid flow simulations
- 25-26 Mar. 2019 **Course: "ANSA-META basic training for CFD"**
BETA CAE, Turin, Italy

FELLOWSHIPS

- May 2022 - Nov. 2022 **Post-graduate research fellowship**
Università degli studi di Roma "La Sapienza", Piazzale Aldo Moro 5, 00185 Rome Italy
- Title: "Filtering and estimation techniques for aerospace systems modeling"
 - Subject: The main theme of the research project concerns the application of filtering and estimation techniques to the problem of mathematical vehicle modeling for such aspects as uncertainty characterization, determination (or correction) of vehicle aeromechanical model parameters, and, more generally, validation of the system model based on flight data

SCIENTIFIC PUBLICATIONS

- V. D’Antuono, G. Di Monaco, A. Zavoli, G. De Matteis, S. Pizzurro and E. Cavallini “Estimation of aerodynamic angles and wind components for a launch vehicle” AAS/AIAA Astrodynamics Specialist Conference, Charlotte, North Carolina, August 7-11, 2022 – accepted
- G. Di Monaco, V. D’Antuono, A. Zavoli, G. De Matteis, S. Pizzurro and E. Cavallini “Improving Trajectory Reconstruction of Launch Vehicle in Atmospheric Flight via Unscented Kalman Filter” AIAA Science and Technology Forum and Exposition, Gaylord National Harbor, MD, January 23–27, 2023 – accepted

PERSONAL SKILLS

Mother tongue Italian

Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	C1	B2	B2	B2
IELTS certificate with average score 6.5 (27/10/2018)					

Levels: A1 and A2: Basic user – B1 and B2: Independent user – C1 and C2: Proficient user
[Common European Framework of Reference for Languages](#)

COMPUTER SKILLS

- Microsoft Office Suite Package, MacOS, MATLAB & Simulink, MSC Nastran and Patran, Mathematica, CFD++, ANSA, Python, Latex

ADDITIONAL EXPERIENCES

- Italian offshore champion (2021), European double-mixed offshore champion (2022), World double-mixed offshore champion (2022)
- Volunteering activities in a foster home in Rome that hosts abandoned kids (2017 – 2020)

Dichiaro che le informazioni riportate nel presente curriculum vitae sono esatte e veritiere. Autorizzo il trattamento dei dati personali ai sensi e per gli effetti del decreto legislativo 196/03 per le finalità al cui presente.