

Lorenzo Cappello

Location: Brisbane, Australia **Email:** lorenzocappello90@gmail.com **Phone:** +61 494 396839
LinkedIn: Lorenzo Cappello **GitHub:** LOMACA **Web Page:** Lorenzo Cappello **Portfolio:** Project Portfolio

Summary

I am an **Aeronautical Engineer** with a passion for aerodynamics, aeroelasticity, propulsion systems, and sustainable aviation. I hold a Master of Science (MSc) in Engineering from the Swiss [Master of Science in Engineering](#) program, specialising in **aeroelastic aircraft wing analysis**, and a Bachelor of Science (BSc) in Aviation from [Zurich University of Applied Sciences](#), focusing on the **aviation climate impact assessment methodologies**. I am fluent in Italian, English, and German, with working proficiency in Spanish and basic proficiency in French. My main goal is to contribute to the **design and development of aircraft concepts and propulsion technologies** that enhance the efficiency and sustainability of future aviation through theoretical modelling and practical testing.

Key Skills

Aeroelastic Modelling (Python, ANSYS, SHARPy) • CFD & Aerodynamics (Python, ANSYS Fluent & CFX) • Flight Testing (MATLAB) • Python & MATLAB Programming • Structural Mechanics & Finite Element Analysis (Python, ANSYS, SHARPy) • CAD (Autodesk Fusion) • Aviation Climate Impact Assessment (Excel)

Education

MSc in Engineering (Specialisation: Aeronautical/Mechanical Engineering)

Sept 2023 – Feb 2025

[Zurich University of Applied Sciences – Centre for Aviation](#)

- **Master Thesis:** Aeroelastic Model Development and Analysis of Flexible Wings: A Multi-Fidelity Approach
- **Flight Test Project:** Aircraft Angle of Attack Estimation Using an Inertial Measurement Unit
- **Skills:** Fluid-Structure Interaction, CFD, Flight Testing, Software Development
- **GPA:** 5.3/6

BSc in Aviation (Aeronautical Engineering)

Sept 2020 – July 2023

[Zurich University of Applied Sciences](#)

- **Bachelor Thesis:** Climate Impact Assessment of Single Flights: Quantification of non-CO₂ Emission Effects
- **Skills:** Theoretical and Computational Aerodynamics, Propulsion System Design, Dynamic Systems Modelling, Aviation Infrastructure, Aircraft Systems Analysis, Wind Tunnel Testing, Risk Assessment, Security Management, Statistical Analysis
- **Semester Abroad:** Griffith University, Australia — *Academic Excellence Award (Airways Operations & Design)*
- **GPA:** 5.3/6 (Grade A) • Degree accredited by Engineers Australia (Professional Engineer)

Work Experience

Food and Beverage Attendant

June 2025 – Dec 2025

Mount Grawatt Bowls Club, Brisbane

- Served as bartender and helped prepare food in the kitchen
- **Skills:** Customer Service, Hospitality

Research Assistant – Centre for Aviation

Oct 2024 – Apr 2025

Zurich University of Applied Sciences, Winterthur

- Developed interactive aerodynamics and flight mechanics content for incoming Aeronautical Engineering students.
- Created scripts, animations, and exercises for basic aerodynamic, flight mechanics, and propulsion system concepts.
- Contributed to course delivery and assessment material in collaboration with the centre for aviation.
- **Skills:** Moodle Page Design, Educational Content Development, Assessment Design

Aircraft Maintenance and Ground Handling Intern - Zurich Airport

June 2019 – May 2020

Motorfluggruppe Zürich, General Aviation Center

- Assisted in 25h–100h and annual inspections of piston-engine aircraft under EASA maintenance procedures.
- Supported aircraft turnaround, refuelling, and coordination with flight crews.
- Gained insight into maintenance procedures and planning as well as general aviation operations.
- **Skills:** Aircraft Maintenance and Inspection, Aircraft Maintenance Legislation, Ground Handling and Aircraft Operations, Aviation Logistics, Customer Service

Certifications & Licenses

- Career Certificate - Spacecraft Attitude Dynamics and Control (Coursera, 2025 - present)
- Career Certificate - AI for Mechanical Engineers (Coursera, 2025)
- Professional Career Certificate – Google Cybersecurity (Coursera, 2025)
- Career Certificate – Siemens Applied Computational Fluid Dynamics (Coursera, 2025)
- Python Programming & Tkinter GUI Certificate (Programmieren Starten, 2023)
- Swiss Private Pilot License – SEP (Issued 2021 - Expired Class Rating 2023)
- Open Driver's License

Technical Skills

- **Programming:** Python, MATLAB, R, SQL (basic)
- **Simulation & Analysis:** ANSYS (Fluent, Mechanical), SHARPy, COMSOL, Fidelity Pointwise, ParaView
- **CAD & Design:** Autodesk Fusion, CATIA 3D CAD
- **General:** Microsoft Office, Moodle, Blackboard

Languages

Italian, German (native) • English (PTE 90/90, Cambridge Grade A) • Spanish (B1) • French (A1)

Hobbies & Interests

Flying single-engine piston aircraft • Chess (University of Queensland chess club) • Hiking and tennis • Cooking and reading • Volunteer at NaturallyGC (wildlife tree planting and pest fishing)