Giulio Di Martino

 Giulio Di Martino — ✉ g.dimartino09@gmail.com — 📞 +39 320 039 3017

PROFESSIONAL PROFILE

Master's student in Mechatronic Engineering with hands-on experience in autonomous systems and robotics. Currently working on my master's thesis at Danisi Engineering, combining simulation tools (CARLA, ROS 2, Simulink) with mechanical engineering fundamentals. Passionate about control systems, autonomous vehicles, and integration of mechanical and software solutions.

EXPERIENCE

Danisi Engineering — Mar 2025 – Oct 2025 (Expected)

Master's Thesis: Virtual Testing of ADAS Systems

- Developing simulation framework for ADAS validation with **CARLA**, **ROS 2**, and **Simulink**.
- Creating driving scenarios with **RoadRunner** and **Unreal Engine**.
- Extracting vehicle dynamics parameters for control optimization.

H2politO, Politecnico di Torino — Dec 2023 – Apr 2025

Autonomous Driving Engineer

- Developed perception-to-actuation pipeline for autonomous racing vehicle.
- Implemented **CAN bus** communication protocols.
- Designed Python modules for vision-based steering and braking control.
- Conducted system integration and performance validation.

Politecnico di Torino

Bachelor's Thesis – Collaborative Robot UR3 — Nov 2022 – Feb 2023

- Experimental analysis of **UR3 collaborative robot** behavior and systematic errors.

UNIVERSITY PROJECTS

One-Pedal Braking System: Developed a Simulink model compliant with ISO 26262 and deployed it on Arduino Uno.

Tasks Simulation on OSEK/VDX: Simulated tasks on OSEK OS, gaining experience in embedded systems and hardware communication.

EDUCATION

2023–Expected 2025	**M.Sc. in Mechatronic Engineering** Politecnico di Torino	()
2019–2023	**B.Sc. in Mechanical Engineering** Politecnico di Torino	87/110
2019	**Scientific High School Diploma**	75/100

TECHNICAL SKILLS

Simulation & Control	CARLA, ROS 2, Simulink, MATLAB, VI-CarRealTime
Programming	Python, C++, Linux, LTspice
Engineering Tools	Fusion 360, AutoCAD

LANGUAGES

Italian	Native proficiency
English	IELTS 6.0 (Professional working proficiency)