Maurizio Pio Vergara

MSc Student in Automotive Engineering

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🌐 github.com/mauriziovergara/CV

› Education

Master's Student, Politecnico di Torino - Automotive Engineering (2024 - Present)

- **Key coursework:** Vehicle dynamics simulation, Driver assistance system design, Car body design and Aerodynamics.
  - Acquired knowledge: Control algorithms (such as PI and MPC) and vehicle dynamics.
  - Team projects: Lane Keeping and Adaptive Cruise Control

Bachelor's Degree, Università degli Studi di Firenze - Mechanical Engineering (2023)

- Thesis title: *Analysis and comparison among yaw rate steering control systems of an autonomous vehicle model.*

› Employment History

Squadra Corse Driverless – Vehicle Dynamics and Controls Engineer (03/2025 - 09/2025)

- Vehicle dynamics simulations using VI-Grade Car Real-Time and SuspensionGen to analyze suspension behavior and support chassis design.
- Active autonomous steering systems using MATLAB/Simulink for control design and signal generation.
- Control strategies implementation via dSPACE platforms and EPOS controllers.
- Torque vectoring strategies within the Simulink environment.

I.S.I.S Gobetti-Volta – Mathematics and physics teacher (2023 – 2024)

- Taught mathematics and physics, gaining first-hand experience in managing responsibilities and leading large groups.
- Organized complex educational content and communicated concepts clearly to support students' intellectual growth.
- Developed effective planning and leadership skills within a fast-paced, high-responsibility environment.

› Skills

Languages	Italian (native speaker), English (fluent) - Cambridge Certificate, Spanish (intermediate), German (basic).
Coding	Python (data analysis, machine learning and deep learning), MATLAB, C, Git.
Documents	LaTeX, Microsoft Office (Word, PowerPoint, Excel).
Softwares	Simulink, VI-Grade, Altair (Hypermesh, Hyperview), StarCCM+, Adams, Adams Car.
Others	Technical presentations, public speaking, critical analysis of results, teamwork.