Giovanni Dal Lago

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Education

M.S. Electrical Engineering — **San Luis Obispo, CA**

California Polytechnic State University, San Luis Obispo GPA: 4.0/4.0 — *2025-2027*

- concentration: Robotics and Control
- Awarded tuition waiver scholarship

B.S. Engineering Physics — **Milan, Italy**

Politecnico Di Milano   final GPA: 104/110 (3.7 equivalent) — *2022-2025*

- Concentration: semiconductors and electronics
- Robotics Association, active member with leadership role.
- Completed the program at the earliest possible term while taking extra courses in Mech. Engineering
- top 5% of the class

Engineering Work Experience

Electronics Engineering Intern — **Milan, Italy**

GreenMecc, Research group at Politecnico Di Milano — *Jan 2025 - Jun 2025*

- Contributed to the design and testing of an ultra-efficient electric vehicle, focusing on control systems and power optimization for the Shell Eco-marathon competition.
- Worked on the design of custom high-power motor driver introducing regenerative braking. Improved energy efficiency by 3% compared with the previous generation.
- performed PCB bring-up and hardware testing.
- Designed, implemented, and validated a PID-based control loop in ANSYS SCADE, achieving a 30% reduction in control system faults during testing relative to the previous generation.

Engineering Projects

- **Vision Based Robotics Manipulator, Cal Poly**   *Sep 2025 - Dec 2025*
  Developed on OpenManipulator-X hardware, capable of detecting colored objects and autonomously placing them in target zones. Implemented kinematics, trajectory planning, feedback control, and visual servoing. Project used by 20+ students for learning purposes.
- **Sensor and IMU Integration for a Hydrogen-Powered Boat**   *Dec 2024 - Mar 2025*
  University Project – Politecnico di Milano, Physis PEB Team
  Led part selection, schematic design, PCB layout for IMU and environmental sensor modules integrated via I^2C into the main control board; coordinated cross-team sensor integration and supported successful system validation one week ahead of schedule.

Leadership, Awards & Involvements

- **International Physicist's Tournament (IPT)**   *Sep 2024 - May 2025*
  Part of the Politecnico di Milano's physics team and represented Italy as part of the National Team. Achieved 1st place in the National Physics Competition and 7th place in the International Final.
- **Hackathon Competitor**   *Mar 2022 - Mar 2025*
  Competed in multiple hackathons, 4th place at Start Hack 2025, the largest hackathon in Switzerland.
- **Military School "Francesco Morosini"**   *Sep 2019 - Sep 2022*
  Attended a three-year leadership-focused military school in Venice (from 16 to 19), leader of my platoon, received multiple merit awards.

Skills

- **Languages:** English, Italian, basic German
- **Programming languages**: C, MATLAB, Python, C++
- **lab Equipment and Software**: oscilloscope, soldering, DMM, Power Supply, Altium, KiCad, ANSYS SCADE, ROS2, Git