

Edoardo Caciorgna

Robotics and Automation
Engineer

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Professional Summary

I'm a dedicated and enthusiastic Master's degree student pursuing a degree in Robotics Engineering, with a solid background in electronic engineering, a strong passion for robotics, automation, autonomous driving and cutting-edge technology. Enthusiastic Robotics and Automation Engineer. Skilled in C++, Python, ROS2 and embedded systems.

Education

2022–Current **Master's Degree in Robotics and Automation Engineering**, *University of Pisa*, Pisa, Italy

2018–2022 **Bachelor's Degree in Electronic Engineering**, *University of Pisa*, Pisa, Italy

Professional Experience

Sep 2023 – **Driverless and AI/Software Development Sector Manager**, *E-Team Squadra Corse*, Pisa, Italy

- Management of my sector and coordination with other departments.
- Development of software for STM32 and Atmel electronic boards.
- Led sponsor relations and projects integration.

Sep 2022 – **Developer**, *E-Team Squadra Corse*, Pisa, Italy

- Sep 2023
- Implementation of a trajectory planning algorithm using Model Predictive Control.
 - Trajectory planner based on track limits and optimal lap planner.

Projects

- Autonomous Driving @ETeam Squadra Corse**
- **Model Predictive Control** for autonomous driving FSAE car based on SLAM and cone detection;
 - **GraphSLAM** for precise and dynamic mapping and localization during environment exploration;
 - **Real-time code** development using FreeRTOS for Vehicle Control Unit and other critical system.

- SmartDrive project** Development of a teleoperated/autonomous driving car using cameras, LiDAR, IMU, and GPS on a 1:7 scale vehicle. Main contribution:
- **Simulator** using Gazebo and ROS2 with sensor and control simulation;
 - **Hardware and Software integration**: development of vehicle electrical system and integration of various sensors;

Technical Skills

Programming Languages C/C++, Python, Bash, MATLAB

Frameworks ROS/ROS2, CasADI, Gazebo, FreeRTOS

Tools Git, VSCode, Microsoft Office, Linux (Shell Commands), Fusion360, MATLAB, Simulink, ArduinoIDE

Languages

Italian Native

English C1 : Proficient

French A1-B1 : Base

Honors & Awards

National Finalist Team Mathematics Olympics, April 2016

Provincial Finalist Individual Mathematics Olympics, February 2015

Provincial Finalist Individual Physics Olympics, February 2015