Filippo Gibertini

FilippoGib | Filippo Gibertini | filippogib@gmail.com | +39 320 93 09 088

EXPERIENCE

Role: Autonomous driving division leader   Sept 2024 - present
Company: MMR E-Driverless

- Lead the autonomous driving division of a Formula Student team, managing a cross-functional team of computer engineering, software engineering and AI engineering students.
- Oversee the design, development, and deployment of perception, planning, simulation and control software.
- Coordinate with electronic engineers and vehicle dynamics experts to ensure seamless system integration and race-readiness.

Role: Team member of autonomous driving division   Sept 2023 - Sept 2024
Company: MMR E-Driverless

- Collaborated with teammates in debugging, system validation, and race preparation, gaining hands-on experience in autonomous driving pipelines.
- Contributed to the development and testing of path-planning and control modules.

EDUCATION

2024 - present	Master's Degree in Artificial Intelligence Engineering at **University of Modena and Reggio-Emilia**
2021 - 2024	Bachelor's Degree in Computer Engineering at **University of Modena and Reggio-Emilia**

SKILLS

Programming	C, C++, Python, Java, Bash
Hardware	Jetson AGX Orin, Jetson Xavier, AMD Kria, Raspberry Pi, Arduino
Simulation	MATLAB, Simulink, SimPy
AI / ML	OpenCV, PyTorch, NumPy, Pandas, Ultralytics, Gymnasium
Tools & OS	Linux, Docker, Slurm, Proxmox, Git, ROS, ROS2

PROJECTS

Visual Mapping Pipeline   Link to Repo

Developed a Computer Vision SLAM pipeline tailored for Formula Student competitions.

LQR Control   Link to Repo

Designed and implemented a LQR-based control algorithm for race-line tracking in autonomous racing vehicles, achieving a 35% reduction of lateral deviation in simulation and track tests.

Smart Fridge   Link to Demo

Built an intelligent fridge application using computer vision to track groceries, reduce food waste, and automate shopping lists.