

Filippo Gibertini

 [filippogib.github.io](https://github.com/filippogib) |  [FilippoGib](#) |  [Filippo Gibertini](#) |  filippogib@gmail.com

EXPERIENCE

Company: **MMR E-Driverless**

Role: **Autonomous Driving Lead**

Sept 2024 - present

- Lead the autonomous driving division of a Formula Student Driverless 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.

Role: **Autonomous Driving Software Engineer**

Sept 2023 - Sept 2024

- Collaborated with teammates on developing 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**

LANGUAGES

Italian Native speaker

English C1 (CEFR), certified by Cambridge English: Advanced (CAE)

SKILLS

Programming C, C++, Python, Java, Bash

Hardware NVIDIA Jetson AGX Orin, NVIDIA Jetson Xavier, AMD Kria, Raspberry Pi, Arduino

Simulation MATLAB, Simulink, SimPy

ML / DL OpenCV, PyTorch, NumPy, Pandas, Ultralytics, Gymnasium

OS & Tools Linux, Docker, Slurm, Proxmox, Git, GitHub, ROS, ROS2, RTOS

PROJECTS

Visual Mapping Pipeline

[Link to Repository](#)

Visual-Inertial Simultaneous Localization and Mapping pipeline tailored for Formula Student competitions, leveraging both deep learning models and classical computer vision techniques.

Real-Time Race-Line Tracker

[Link to Repository](#)

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

Smart Frige

[Link to Repository](#)

Hardware-Software solution that exploits object detection and OCR to track groceries and cut food waste.