MARCO MURA

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Professional Summary

Master's student in Electronics Engineering at the "Enzo Ferrari" Department of Engineering, University of Modena and Reggio Emilia, with hands-on experience in hardware design and embedded firmware development.

Strong academic background in IoT systems and PCB design, with a particular interest in millimeter-wave RADAR technology and neuromorphic computing.

Recent work includes implementing the LISTA algorithm for Multidimensional Harmonic Retrieval and investigating RRAM-based analog computing systems.

Currently developing a master's thesis focused on vital-sign estimation using millimeter-wave RADAR.

Former member of the UNIMORE Formula Student Driverless Team, contributing to hardware design and system testing.

Education

2022 - Present: MSc in Electronics Engineering - Smart Connected Systems, at the "Enzo Ferrari" Department of Engineering, University of Modena and Reggio Emilia, Italy

2022: BSc in Electronics Engineering at the "Enzo Ferrari" Department of Engineering, University of Modena and Reggio Emilia, Italy. Final grade: 109/110

2018: High School Diploma - Scientific Lyceum "Antonio Pacinotti", Cagliari. Final grade: 100/100

Professional Experience

2025: Embedded Systems Intern at Techboard Group S.r.l., Modena, Italy. Selected for a merit-based scholarship in Electronics Engineering, which led to an internship at Techboard Group. Conducted experiments with commercial FMCW millimeter-wave RADAR modules for fall detection and people tracking applications.

2022/2023: Hardware Design Team Member - UNIMORE Formula Student Driverless. Designed PCBs and supported system integration for the autonomous vehicle project. Assisted with hardware testing and maintenance of the vehicle's wiring and electronics.

Technical Skills

PCB Design: Altium Designer, KiCad

Programming: C, basic Assembly, Python, basic Web programming

Embedded Platforms: STM32, ESP32

Simulation and Modeling: MATLAB, Simulink

Version Control: Git

Additional Information

Languages: English (C1 level), Italian (native)

Personal Projects: DIY electronics and embedded systems prototypes

Achievements: Finisher - Milan Marathon 2025