

GIUSEPPE FESTA

Control and AI Engineer for Humanoid Robots and Autonomous Systems

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Control Engineer with a passion for innovation and sustainability. I actively participated in patenting procedures and gained extensive leadership and product design experience managing startups, working for Michelin, Terna and Neura Robotics, and through the Alta Scuola Politecnica Program. Currently managing a Tech startup in the field of Computer Vision and Robotics while developing control software for humanoid robots at Neura.. Always seeking an opportunity to change the world.

PROFESSIONAL EXPERIENCE

- Neura Robotics |** **Metzingen, Germany**
Control Engineer Team Lead for Humanoid Robots *2025-Present*
- High transparency Teleop system implementation. Improvement of tracking capabilities and latencies.
 - Custom application development for robotic control systems and state estimations for navigation on humanoids
- Control Engineer for Humanoid Robots** *2025*
- Low-level control for actuators (Control synthesis and Firmware development).
 - Interface development for transparent command exchange via DDS systems
- Thinking! | Stage Robotics (startup)** **Milan, Italy - Lille, France**
Robotics Engineer *2022-2025*
- Design of a custom robot, able to perform unique movements on the stage. The realisation includes 3D modelling and printing, Python and ROS2 software development, wiring, and RF coupling via Altium and Espressif IDE.
 - Design of Synchronised Systems and Firmware interfaces with DMX512 to control distributed systems during shows and live exhibitions, and production of documentation to support safety standards with Italian V.V.F.F. and French DCCRS.
- Michelin | Cuneo - Fossano Plant** **Cuneo, Italy**
Perception Engineer *2022-2024*
- Successfully developing a fast and reliable fault detection system to improve online quality controls on the Michelin car tire production facility. The job required extensive Machine Learning skills, deep knowledge of OpenCV and TensorFlow libraries for C++ and Python, and optimization done through Vulcan for workload parallelisation.
- FreeRoom (freeroom.digital)** **Milan, Italy - Valencia, Spain**
Co-Founder and CTO *2022-2024*
- Founded a startup and implemented the perception and secure networking for meshed control cameras. The enterprise has since grown by acquiring partners interested in utilising advanced machine vision for security purposes.
- Dynamis PCR | PoliMi Reparto Corse** **Milan, Italy**
Inverter Designer *2020-2023*
- In a team of three people, I successfully developed a three-phase 20 kW modular inverter to drive custom motors.
 - We developed the PCB and custom FOC software using MATLAB, OrCAD, CubeMX and STM32 Keil.

EDUCATION

- Politecnico di Milano** **Milan, Italy**
Msc. Automation and Control Engineering *2023-2024*
- **GPA:** 4.00 - 110 Cum Laude
 - **Thesis:** Terna S.p.A.: *Design, Implementation and Experimental Tests of a Prototype of Power Converters for HVDC Applications.*
- Politecnico di Milano** **Milan, Italy**
Bsc. Automation and Control Engineering *2020-2023*
- **GPA:** 4.00 - 110
 - **Relevant Activities:** Proven track record in Electronics, Machine Learning, Computer Vision, and Control Applications.
- Alta Scuola Politecnica** **Milan - Turin, Italy**
Member and Team Leader *2022-2024*
- **GPA:** 4.00
 - Completed the prestigious ASP honour program (PoliMi & PoliTo) focused on excellence in science and engineering. Participated in seminars with leading experts on technology, sustainability, and development. Completed research and management projects, including industry collaborations with Michelin, Terna, and other top enterprises.
- RWTH Aachen** **Aachen, Germany**
Erasmus+ Student *2023-2024*
- FAU Erlangen - Siemens Additive Manufacturing** **Nuremberg, Germany**
Additive Manufacturing and Powders Processing Techniques Trainee. *2023-2024*
- Università Parthenope di Napoli** **Naples, Italy**
CyberChallenge Cyber Security Training Program. Head of the Regional Team for the national phase. *2018 - 2020*

ACTIVITIES & LEADERSHIP

- Athens Program Ambassador - Politechnika Warszawska** **Warsaw, Poland**
- Head of the team at the Warsaw University of Technology for the training program “Advanced Acoustic Measurements”.

SKILLS & INTERESTS

Interests: Boxing, MMA, Guitar, Rugby, Climbing, 3D Modelling, Aerial Photography

Languages: Italian (native), English (C2), Spanish (B2), German (A2), Turkish (A1), but improving