Bernardo **Lanza**

Ph.D., Robotics Engineer



Hey there! I'm Bernardo, the tech wizard who turns orchards into high-tech havens using AI and computer vision. Armed with a Ph.D. and a passion for mechatronics, I blend robotics and nature like no other. When I'm not revolutionizing agriculture, you can find me diving into history, tinkering with DIY loT gadgets, or volunteering for community causes. Let's team up and create the future together!

Bernardo Lanza - 2 Sept 1993 -

Areas of specialization

Metrology • Statistics • Optical sensors • Embedded Linux · Computer Science · Dynamics · Physics

Manual and Mechanical skill Creativity • Critical thinking

Arduino Blockchain / Electronics / Biology / History ✓ Games • Volunteering

LANGUAGES

Italian **English**







SHORT RESUME

2022-2024

Ph.D.

LEAD · Mechanical and Thermal Measurement Lab 9 Vision system for Agricolture



2024 Ph.D. research abroad

> RESEARCH SCIENTIST · University of Lleida Spain ? 3D recostruction of orchards using LiDARs and RGB-D sensors (SLAM-IMU-GNSS)



2022-2023 Junior developer

STAGE · Prospecto ♀

MCU Sensors and Optical Measurements for Agriculture



2021-2022 Research Fellowship

RESEARCH SCIENTIST · University of Brescia ?

Object recognition for human motion analysis and plant detection (mediapipe - YOLO)







DEGREES

2025 Computer vision for agriculture

Рн.D. · University of Brescia 🚊



2020 **Mechatronic Engineering**

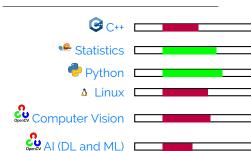
M.S. University of Trento 🏦



2017 **Industrial Engineering**

B.S. · University of Trento 🏦

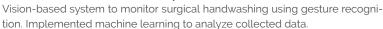




PROJECTS

2023 Gesture recognition for Healthcare 4.0

RESEARCH SCIENTIST · University of Brescia ♀





2021 Vision system for body and gym gesture recognition

LEAD · University of Brescia 9

Vision-based pose estimator for human body and gym gesture recognition.



CERTIFICATES & GRANTS

2023 Best poster awards, IEEE Metrology for Agriculture and Forestry

2021 DeepLearn 2021 Summer school

LECTURE

2023 "Probabilistic Sensor Fusion: From Naïve Bayes to Kalman Filters: Lab. of Mechanical and Thermal Measurements, 2023.

PUBLICATIONS

First Step Towards Embedded Vision System for Pruning Wood Estimation, IEEE Metrology for Agriculture and Forestry

2023 Gesture recognition for Healthcare 4.0: a machine learning approach to reduce clinical infection risks IEEE Xplore.

2022 Deep learning for gesture recognition in gym training performed by a vision-based augmented reality smart mirror, ISBS, International Society of Biomechanics

Bernardo Lanza ✓ Verona - Milano 📞 +39 3489730547



