





PERSONAL INFO



Giampiero Bartolomei

 Via Ugo Giavitto, 6, 00054, Fiumicino (RM), Italy.
 +39 393 9596 439
 bartolomeig@outlook.it, giampiero.bartolomei@istc.cnr.it
 <https://www.linkedin.com/in/giampiero-bartolomei-314046224/>

Sex M | Date of birth 01/26/2001 | Nationality IT | Driving license B | Age 24

Young Biomedical Engineering graduate interested in applying, but more importantly expanding his knowledge in the field of biomedical technologies & AI.

WORK EXPERIENCES

July 2024 - ongoing

Research fellow, at CNR - Institute of Cognitive Science and Technology, "Laboratory of Embodied Natural and Artificial Intelligence." (Development of software and hardware for experimental interactive devices: Transitional Wearable Companions - TWC). <https://im-twin.eu/video/>

EDUCATION

December 2024

Qualification to practice as a **professional engineer**, Section A - Industrial Sector. National Council of Engineers of Italy.

December 2021 –
February 2024

Master's degree in Biomedical engineering (LM-21, Clinical Engineering curriculum), "Campus Biomedico di Roma" University, with a grade of 110/110. Thesis Title: "*Toward measurements of vital signs and posture recognition during sleep via an FBG-based smart mattress*".

November 2018 –
December 2021

Bachelor's degree in Clinical engineering (L-9), "Università degli studi La Sapienza di Roma", with a grade of 100/110. Thesis Title: "*Una simulazione del potenziale d'azione: il modello Hodgkin-Huxley*".

2018

High school scientific diploma, "Istituto Giovanni Paolo II", Ostia (RM), with a grade of 100/100.

PERSONAL SKILLS

English Language

Good language skills, good ability to communicate effectively in everyday and professional scenarios. Cambridge certified (B1).

Professional skills

General expertise in the operation and current regulations of medical devices and hospital electrical systems. Proficient in computer science and programming, particularly in Matlab, C++ (firmware), and Python. Proven knowledge of COMSOL, Data Analysis, Machine Learning, and Artificial Intelligence. Skilled in 3D printing and PCB design (Autodesk Eagle, Fritzing). Advanced proficiency in Microsoft Office Suite.

Certificates

General and Specific Training Course for Workers (12 hours): High training program in "Accident Prevention and Occupational Hygiene." *Matlab Fundamentals* (16.5 h), *Machine Learning with MATLAB* (12 h), issued by Mathworks®.

FURTHER INFORMATION

Study projects

Design and fabrication of an embedded needle injection system for drug delivery according to ISO 11608-1.

Electrical testing and functional checks on a Philips Heartstart XL defibrillator.

ML Challenge: Machine learning task for detection of grafted tumors by deepfake methods on CT images.

Thesis project: development of algorithms for continuous recording of vital parameters and posture recognition during sleep via unobtrusive measurements.

Publications

- D'Antoni F., De Tommasi F., Bartolomei G., Lo Presti D., Vollero L., Silvestri S., Schena E., Merone M., Massaroni C., '*Sleeping Posture Classification Through a Multi-Sensing Smart Mattress Based on Fiber Bragg Grating Sensors: A Feasibility Study*', IEEE MetroInd 4.0 & IoT 2024.
DOI: [10.1109/MetroInd4.0IoT61288.2024.10584179](https://doi.org/10.1109/MetroInd4.0IoT61288.2024.10584179)
- Bartolomei, G., Ozcan, B., Granato, G., Baldassarre, G., & Sperati, V. 'Echo: an ai-based toy to encourage symbolic play in children with autism spectrum conditions', In Proceedings of International Conference on Tangible, Embedded and Embodied Interaction - TEI '25 (Work presenter).
DOI: [10.1145/3689050.3705987](https://doi.org/10.1145/3689050.3705987)