



Alessia Venuto

ID: [REDACTED] | Work permit: Italian | Date of birth: [REDACTED] | Place of birth: [REDACTED]
Nationality: Italian | Gender: Female | Phone number: [REDACTED] | Email address: [REDACTED]
Address: [REDACTED]

ABOUT ME

I am a Biomedical Engineering graduate currently pursuing a Master's degree in Neurobioengineering at the University of Messina. I have a strong interest in neuroscience, medical data analysis, and the application of machine learning to support clinical decision-making.
My academic and research experience has focused on neuroimaging analysis, including structural and functional MRI, and the extraction of biomarkers related to neurodegenerative diseases such as Alzheimer's.
I am particularly motivated by the opportunity to combine engineering, data science, and medicine to create innovative healthcare solutions.
I am a proactive and detail-oriented person, with strong problem-solving skills and the ability to work effectively in multidisciplinary teams.

DRIVING LICENCE

Driving Licence: AM
Driving Licence: B

EDUCATION AND TRAINING

2024 – CURRENT Messina, Italy
MASTER'S DEGREE IN BIOMEDICAL ENGINEERING (NEUROBIOENGINEERING) University of Messina

Field of study Engineering and engineering trades not further defined | **Level in EQF** EQF level 7

2021 – 2024 Messina, Italy
BACHELOR'S DEGREE IN BIOMEDICAL ENGINEERING University of Messina

- Biomedical instrumentation and electronic system design
- Development of compact measurement systems for nuclear medicine
- Signal acquisition and processing
- Experimental testing, calibration, and performance evaluation
- Data analysis and problem-solving in a research environment

Field of study Engineering and engineering trades not further defined | **Level in EQF** EQF level 6 |

Thesis Sviluppo di un sistema compatto per applicazioni di medicina nucleare

2016 – 2021 Spadafora, Italy
SCIENTIFIC HIGH SCHOOL DIPLOMA Liceo Scientifico Galileo Galilei

Field of study Natural sciences, mathematics and statistics not further defined | **Final grade** 100 | **Level in EQF** EQF level 4

WORK EXPERIENCE

RESEARCHER – IRCCS CENTRO NEUROLESI “BONINO PULEJO” – 01/09/2025 – Current – MESSINA, ITALY

- Project: “NeuroSuite: a new intelligent and predictive system for clinical decision support in neuro-frailty.”
- Analysis and processing of structural and functional neuroimaging (MRI) datasets for patients with Alzheimer's Disease, Mild Cognitive Impairment (MCI), and Parkinson's Disease.
- Advanced use of neuroscientific research software: FreeSurfer, CAT12, CONN, MRICron.
- Extraction and study of morphometric and functional biomarkers of cortical and subcortical structures.

- Development of automated data analysis pipelines using Python.
- Application of Machine Learning methods and statistical analysis for clinical decision support.
- Utilization of TRACE4AD software (AI-based) for AD/non-AD classification and 2-year risk prediction of Alzheimer's development.
- Participation in conferences, seminars, and scientific dissemination activities.

GRADUATE RESEARCH INTERN – UNIVERSITY OF MESSINA – 2024 – 2024 – MESSINA, ITALY

- Design and Development: Conducted experimental research focused on the design and prototyping of a compact measurement system for real-time radioactivity monitoring in patients undergoing Radioiodine therapy.
- Hardware Integration: Worked on the integration of sensors and transduction systems within the LESST (Laboratory of Electronics for Sensors and Transduction Systems), focusing on signal conditioning and data acquisition.
- Laboratory Testing: Performed experimental validation and characterization of sensing devices, ensuring precision and reliability for clinical application in nuclear medicine.
- Data Analysis: Analyzed experimental data to optimize the sensitivity and geometry of the detection system, aiming to improve patient safety and monitoring accuracy.
- Technical Documentation: Authored a comprehensive technical thesis titled *"Development of a compact system for nuclear medicine applications"*, detailing the electronic architecture and experimental results.
- Safety Protocols: Applied rigorous laboratory safety standards and radiation protection protocols during the testing phases.

STUDENT ADMINISTRATIVE ASSISTANT – UNIVERSITY OF MESSINA – 2023 – 2023 – MESSINA, ITALY

- Front-office & Welcoming: Provided front-desk assistance and welcoming services for incoming international students (Extra-EU), acting as the primary point of contact for their integration.
- International Communication: Used English as the main language for daily communication, providing information and resolving student inquiries.
- Administrative Support: Assisted students in drafting and finalizing formal documents, including Learning Agreements and Erasmus+ mobility paperwork.
- Data Management: Managed and updated student databases, ensuring accuracy and confidentiality of personal and academic records.
- Problem Solving: Supported students in navigating administrative procedures and university services.

CERTIFICATIONS

CERTIPASS
EIPASS 7 Moduli User

CERTIPASS
EIPASS PROGRESSIVE

Cambridge Assessment English, 04/2025
B2 CEFR

LANGUAGE SKILLS

Mother tongue(s): **ITALIAN**
Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	B2	B2	B2	B2	B2
SPANISH	B2	B2	B2	B2	B2
FRENCH	A2	A2	A1	A1	A1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

● CONFERENCES AND SEMINARS

IRCCS Centro Neurolesi "Bonino Pulejo"

Advanced Techniques for EEG Processing

IRCCS Centro Neurolesi "Bonino Pulejo"

Accessibilità dei dati, misure di sicurezza e cybersecurity.

Formazione su CUG, parità di genere, inclusione e rispetto dei diritti

V Meeting Annuale RIN

University of Messina

Wearable Sensors For Physiological Monitoring

Ricerca Tradizionale in Neuroradiologia Interventistica

Modelling and Modulating Body Representation: Advanced Neuroimaging and Translational Methods

● SKILLS

MATLAB | Machine Learning | Deep Learning | LaTeX | C | MySQL | Microsoft Office | Microsoft Word | Microsoft Excel | Microsoft Powerpoint | Git | Python | C++ | SQL | Freesurfer | Cat12 | XML | Coppelias | KiCad | MRICron | JSON | HTML | Signal Processing | Statistical Analysis | R | Data Analysis | Windows | Data Visualization | Problem Solving | Attention to Detail | Teamwork & Collaboration | Biomedical Data Interpretation | MRICron | java | Visual Studio Code | Spider | Pandas | Matplotlib | Numpy | Scikit-learn | Anaconda | Jupyter Notebook

I consent to the processing of my personal data included in this CV in accordance with Italian Legislative Decree 196/2003 and EU Regulation 2016/679 (GDPR).

Messina , 07/04/2026



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