

Curriculum Vitae
Federico Colelli Riano

Date of birth	11.11.96	
Citizenship	Italian	
Contacts	+39 0824 909607 federico.colelliriano01@universitadipavia.it	
Work experience		
11/2023 – up to date	Research and Development Engineer at IRCCS Maugeri S.p.A. Design and prototype of wearable devices – Development of IoT solutions – Cloud computing – IMU developer – Microcontroller programming – Research in biomedical engineer field – Stakeholder engagement– User adoption. Telese Terme, Benevento, Italy	
05/2023 – 11/2023	Associate at Intellera Consulting S.p.A. IT Strategy and Governance consultant – Healthcare project management – Customer experience – Gap Analysis – Stakeholder management – Business process design. – Remote consulting for Piemonte Region on EMRAM – On-site consulting for Campania Region on telemedicine projects – FSE 2.0 adoption. Customer experience – Service Design – Digital Transformation. Rome, Italy.	
04/2023 – 05/2023	Software Test Engineer at Teoresi Group S.p.A. Test for complex automotive systems – System, Acceptance and Qualification tests for several international projects – DB management. Naples, Italy.	
04/2022 – 09/2022	Master’s Degree Internship at IRCCS Salvatore Maugeri S.p.A. Signal process engineer – Process clinical engineer – Wearable device developer – Gait Analysis solutions developer for thesis work – Data analysis – Development of smart solutions in the field of neurodegenerative diseases. Telese Terme, Italy.	
02/2021 – 01/2023	IT coordinator for gP Telemedicine system management– Patients’ relationships– Helping to devise a new business model and steps to support it. Served as a coordinator at events, ensuring place settings were correct and all vendors delivered on time. Naples, Italy.	

05/2019 – 12/2022	Invigilator and Usher at Cambridge School Naples Invigilator and usher at Cambridge School Naples: the Cambridge English Authorized Centre IT 706. Naples, Italy.
Education	
10/2024 – up to date	PhD in Bioengineering, Bioinformatics and Health Technologies at University of Pavia <p>The research topics mainly concern the analysis and management of big data for health, bioinformatics, biomedical informatics, mathematical modeling for the description of biosystems, pharmacometrics, informatics for health technology assessment, and telemedicine. The common denominator is given using methodologies, techniques and tools of information engineering, including artificial intelligence techniques, applied to the management, analysis and modeling of data mainly from the biomedical sector.</p>
09/2020 – 12/2022	Master's degree in biomedical engineering at University of Naples, Federico II, Italy. Grade: 110/110 with honours (GPA 4.0) <p>Main courses: Biomedical instrumentation – Signal processing in MATLAB – Imaging, DICOM knowledge – Data analysis – Clinical engineering – Prototype of a medical device using Autodesk and firmware programming using STM IDE – MRI, PET and TC deep knowledge – Integrated electronic system architecture – VHDL knowledge.</p> <p>Thesis in Telemedicine titled “Experimental validation of e-textile socks for gait analysis”– study of gait analysis, benchmarking between a new wearable device provided by “Sensoria Health” and “APDM” inertial sensors as system of reference – Data analysis as medical feedback for rehabilitation – Validation of agreement using Bland Altman plot and Passing-Bablok method – Testing and development of the electronic core developed by “Sensoria Health”.</p>
09/2015 – 03/2020	Bachelor's degree in biomedical engineering at the University of Naples, Federico II, Italy. Grade: 92/110 (GPA 3.0) <p>Main Courses: Physics – Fluid dynamics – Biomaterials – Programming in C++ – Programming in MATLAB – Electronic – Robotics – Electromagnetic field Signal processing – Instrumentation measurement for bioengineering.</p> <p>Thesis in bioinformatics titled “Minimization of the number of electrodes in emotions recognition by EEG”: study of correct electrode placing on a brain helmet for emotions assessment.</p>

Technical skills

Background and studies

- **IBM Data Engineering Professional Certificate**

Professional Certificate where I developed essential knowledge and skills to perform the many tasks in an entry-level data engineering role. By completing over a dozen courses in the program I have demonstrated a firm grasp on and practical experience with fundamentals of Relational Databases, Database Architecture, Design, & Administration, Data Warehousing, Querying databases with SQL and BI Tools, ETL with Python Programming language and Shell Scripts, NoSQL, and Big Data processing using Apache Spark, issued on 28 October 2024

- **Make XP | Medtronic Master Advanced Knowledge Experience.**

The Medtronic excellence masterclass that certifies the compliance with the skills required to the exercise of Bioengineering profession in terms of business management and stakeholder management, issued in Milan on 20 January 2023.

- **Matlab Onramp.**

Matlab class that certifies basic skills in coding, issued on 01 March 2022.

- **Cisco Networking Academy® Introduction to Packet Tracer course.**

Cisco Networking Academy certifies intermediate IP protocol knowledge, issued in Naples on 22 June 2022.

- **Eipass 7 Modules.**

EIPASS, European intermediate certification that allows to acquire a series of knowledge and skills on everything related to the use of ICT tools or information and communication technologies, according to the description of the E-CF, issued in Caserta on 16 November 2016.

Technical knowledge

- Proficient in MS Office.
- Proficient experience in debugging and modelling with MATLAB.
- Good knowledge of SQL and RDBMS.
- Proficient in data analysis with Python.
- Academic knowledge of C++.
- Good knowledge of Autodesk.
- Basic knowledge of VHDL.

Soft skills

Social skills

- Excellent communication skills. continuously improving public speaking skills thanks to the activities of consultant and researcher.
- Leadership, strong team player with excellent collaboration skills, and a commitment to maximizing the production process within a facility.
- Initiative and problem-solving.

Language skills

- Italian, mother tongue.
- English, proficient in writing and speaking, Certificate in Advanced English (CAE), Cambridge ESOL (Council of Europe Level C1), 06/2018.
- Spanish, basic level.

Publications

- F. Amitrano, A. Coccia, F. Colelli Riano, G. Pagano, V. Marsico and G. D'Addio, "Custom Ankle-Foot Orthosis in Foot Drop: Influence on Body Joints Kinematics," in *2024 46th Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, IEEE, (Orlando, USA) 16 - 18 July 2024.
- G. Pagano, F. Colelli Riano, G. Iaselli, M. Terzaghi, A. Malovini and G. D'Addio, "SAALUS: Smart Ambient Assisted Living Ubiquitous System", in *2024 8th Research and Technologies for Society and Industry*, (Lecco, Italy) 18 - 20 September 2024.
- F. Colelli Riano, F. Amitrano, A. De Rosa, G. Iaselli, A. Biancardi, A. Coccia and G. D'Addio "Using textile sensors to assess electromyographic activation patterns during gait" in *2024 34th SIAMOC Congress*, (Stresa, Italy) 3 - 5 October 2024.
- F. Colelli Riano, F. Amitrano, G. Iaselli, A. De Rosa, A. Malovini, G. D'Addio and R. Bellazzi, "Smart Socks for gait analysis: a comparative study of algorithms" in *2025 47th Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, IEEE, (Copenhagen, DK) 14 - 17 July 2025.
- F. Colelli Riano, F. Amitrano, G. Iaselli, A. De Rosa, A. Malovini, G. D'Addio and R. Bellazzi (2025). "Smart Socks for Gait Analysis: A Comparative Study of Algorithms". In *Annual International Conference of the IEEE Engineering in Medicine and Biology Society*. IEEE Engineering in Medicine and Biology Society. Annual International Conference (Vol. 2025, pp. 1-7).
- G. Iaselli, A. Coccia, A. De Rosa, F. Colelli Riano, G. Pagano, G. D'Addio and F. Amato (2025). "Kinematic Outcomes of Early-Stage Passive Rehabilitation in Subject Undergoing Knee Arthroplasty" In *Annual International Conference of the IEEE Engineering in Medicine and Biology Society*. IEEE Engineering in Medicine and Biology Society. Annual International Conference (Vol. 2025, pp. 1-6).

Conferences

- *Roundtable guest at "ThermaCareInnova"*. Discussion about start-up in the healthcare sector – Introduction and presentation of my thesis work. The event was promoted by "Angelini Pharma" with the aim of promoting innovative solutions in heat therapy area. 17/03/2023 EY, Rome, Italy.

Naples, 07 January 2026

Federico Colelli Riano

A handwritten signature in black ink, appearing to read 'Federico Colelli Riano', with a long horizontal flourish extending to the right.