
Curriculum Vitae et Studiorum

Federica Caruso

1 Personal information

Date and place of birth : 3rd November 1992, Termoli (CB) - Italy
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2 Professional Positions

Current Position

- *December 2025 - Ongoing* Assistant Professor (RTD-A) in Information Processing Systems at the Department of Information Engineering, Computer Science and Mathematics (DISIM) - University of L'Aquila.

Previous Positions

- *August 2022 - November 2025* Post-Doc Research Fellow at the Department of Information Engineering, Computer Science and Mathematics (DISIM) - University of L'Aquila.
- *July 2018 - October 2018*: Trainee at "Armundia Group s.r.l".
- *August 2018 - October 2018*: Research Fellow at Center of Excellence DEWS (University of L'Aquila). Project "Strumenti e tecnologie HW/SW per sistemi immersivi di realtà virtuale".
- *February 2022 - July 2022* Research Fellow at the Department of Information Engineering, Computer Science and Mathematics (DISIM) - University of L'Aquila. Project "Strumenti, metodologie e tecnologie HW/SW per sistemi immersivi di realtà virtuale e serious game".

3 Education and Qualifications

- *November 2018 - November 2022*. Ph.D. in Information and Communication Technology, University of L'Aquila (Italy), *with honors*. Thesis title: "Technology-Enhanced Learning PhD Projects: An Innovative Methodology for Scientifically Valid and Practically Useful Results".
- *June 2021* Training Courses (24 CFU) for admission to "Concorso FIT", University of L'Aquila (Italy).
- *July 2019*. PhD Summer School in "Advanced Computer Architecture and Compilation for High-Performance and Embedded Systems".

- *June 2019*. PhD Summer School in “Cyber-Physical Systems and Internet-of-Things”.
- *March 2018*. Master Degree in Computer and Automation Engineering, University of L’Aquila (Italy), final mark 110/110 with honors. Thesis title: “Serious Games and Immersive Virtual Reality: Technological Issues and Design in a Selected Context of Use”.
 - *Honorable Mention*: 8th edition of the Movimento italiano Modelling & Simulation (MIMOS) Award for the Master Thesis category.
- *December 2015*. Bachelor’s Degree Information Engineering at University of L’Aquila (Italy), final mark 109/110. Thesis title: “Development and Experimentation of collision avoidance algorithms for vehicular networks through COTS devices”.
- *July 2011*. High School Scientific diploma, I.T.I.S. “E. Majorana”, Termoli (CB) (Italy), final mark 100/100.
- *Language Skills*. Table 1 below reports language skills with respect to the EU standard (<https://europass.cedefop.europa.eu/it/resources/european-language-levels-cefr>).

	Comprehension	Speech	Written
English	B2	B2	B2

Table 1: Foreign Languages.

4 Scientific Research

I am the author and co-author of 37 scientific peer-reviewed articles (the list of publications is reported in Section 7). My scientific production counts:

- *Source Scopus* - 163 citations and 8 as Hirsch index;
- *Source Google Scholar* - 281 citations and 9 as Hirsch index.

(*Last access: 13 April, 2026*)

4.1 Field of Interest

My research focuses on different topics intertwined around a main one, the **Human-Computer Interaction (HCI)**, specifically:

- Technology-Enhanced Learning;
- Serious Game;
- Assistive Technology;
- Immersive Virtual Reality;
- Human-centered Artificial Intelligence (AI).

4.2 Scientific and Organisational Activities

- *Workshop Organizer*: 1st International Workshop on CyberSecurity Education for Industry and Academia (CSE4IA2023) co-located with the 9th International Symposium on End User Development (IS-EUD) 2023; 2nd International Workshop on CyberSecurity Education for Industry and Academia (CSE4IA2024) co-located with the International Conference on Advanced Visual Interfaces (AVI2024); 3rd International Workshop on CyberSecurity Education for Industry and Academia (CSE4IA2025) co-located with the 10th International Symposium on End-User Development (IS-EUD) 2025.
- *Workshop Chair*: 13th International Conference on Methodologies and Intelligent Systems for Technology Enhanced Learning (MIS4TEL2023).
- *Publicity Chair*: (1) 14th Biannual Conference of the ACM Italian SIGCHI Chapter (CHITALY2021); (2) 11th and 12th International Conference on Methodologies and Intelligent Systems for Technology-Enhanced Learning (MIS4TEL2021, MIS4TEL2022).
- *Session Chair*: (1) 18th International Conference on Human-Computer Interaction (INTERACT 2021); (2) 15th Biannual Conference of the Italian SIGCHI Chapter: Crossing HCI and AI, CHItaly 2023.
- *Local Organizer Chair*: 12th International Conference on Methodologies and Intelligent Systems for Technology-Enhanced Learning (MIS4TEL2022)
- *Program Committee Member*: 14th Biannual Conference of the ACM Italian SIGCHI Chapter (CHITALY2021); 12th International Conference on Methodologies and Intelligent Systems for Technology Enhanced Learning (MIS4TEL2022); 13th International Conference on Methodologies and Intelligent Systems for Technology Enhanced Learning (MIS4TEL2023); 15th Biannual Conference of the ACM Italian SIGCHI Chapter (CHITALY2023); 17th International Symposium on Emerging Technologies for Education (SETE 2023); 11th International Workshop on Open Community approaches to Education, Research and Technology (OpenCERT 2023); 14th International Conference on Methodologies and Intelligent Systems for Technology Enhanced Learning (MIS4TEL2024); 15th International Conference on Methodologies and Intelligent Systems for Technology Enhanced Learning (MIS4TEL2025); 14th Games and Learning Alliance Conference (GALA 2025); 15th Games and Learning Alliance Conference (GALA 2026); 16th International Conference on Methodologies and Intelligent Systems for Technology Enhanced Learning (MIS4TEL2026).
- *Speaker*: CSEDU2019; MECO2019; CHITALY2019; AVI2020; CSME2020; MIS4TEL2020; MIS4TEL2021; CHITALY2021; IEEE-METROIND2022; MIS4TEL2023; MIS4TEL2024; AVI2024; MIS4TEL2025; CSEDU2025; CHITALY2025; SLERD2025.

4.3 Scientific Grant

- *Honorable Mention*: 8th edition of the Movimento italiano Modelling & Simulation (MIMOS) Award for the Master Thesis category.
- *Young Researcher Award*: 13th Biannual Conference of the ACM Italian SIGCHI Chapter (CHITALY2019).
- *Student Challenge Winner*: HiPEAC Student Challenge VI: AI for Humanity @ HiPEAC CSW Spring. Apr. 16th-18th, 2019, Edinburgh, United Kingdom.

- *Participation Grant*: (1) 15th Summer School on “Advanced Computer Architecture and Compilation for High-Performance and Embedded Systems” (ACACES2019); (2) 9th Meeting of Young Researchers in Human-Computer Interaction (RJC2019).

5 Teaching Activities

5.1 Academic Teaching

- *2026 - ongoing* Co-Teacher of the course “Interactive Systems Design”, Master’s Degree in Computer and Systems Engineering, University of L’Aquila (Italy).
- *2026 - ongoing* Co-Teacher of the course “Programmazione Web”, Bachelor’s Degree in Information and Communication Technologies (ICT) Engineering, University of L’Aquila (Italy).
- *2023 - 2025* Teaching Assistant of the course “Lab. of Computer Skills” - Bachelor’s degree in Politics: Philosophy and Economics, LUISS University – Guido Carli.
- *2022 - 2024* Teaching Assistant of the course “Digital Transformation & Emerging Technologies” - International MSC Law, Digital Innovation and Sustainability, LUISS University – Guido Carli.
- *2022 - 2025* Teaching Assistant of the course “Informatica” - Bachelor’s Degree in “Economia e Management” - LUISS University – Guido Carli.
- *2019 - ongoing* Teaching Assistant for “Advanced Database Systems” course, Master’s Degree in Computer and Systems Engineering, University of L’Aquila (Italy).
- *2021 - ongoing* Teaching Assistant for “Methods and Measures for IT” course, Master’s Degree in Computer and Systems Engineering, University of L’Aquila (Italy).

5.2 Non-Academic

- Tutor for “Virtual Reality” domain at “PINKAMP - Le ragazze contano!”, June 22th - July 3rd, 2020.
- Lecturer of the course “Realtà Aumentata o Realtà Immersiva?” at “PINKAMP - Le ragazze contano!”, June 20th-28th, 2019.

6 Professional Activities

- *2020-ongoing* Consultant at Project Innovation srl - UX/UI designer.

7 Research Publications

References

- [1] Gianluca Brilli, Federica Caruso, Giacomo Valente, Alberto Carlevaro, Chiara Garibotto, Jacopo Motta, Vittoriano Muttillio, Damiano Vallocchia, and Paolo Burgio. “Empowering Retail Visitors Through Edge AI: A User-Centered Case Study of Cooperative Totem Systems”. In: *IEEE Access* (2026). DOI: 10.1109/ACCESS.2026.3666231.

- [2] Klas Brinkfeldt, Baris Bulut, Federica Caruso, Tania Di Mascio, Leonardo Fazzini, Daniele Frigioni, Josef Moser, Vittoriano Muttillio, Luigi Pomante, Klaus Pressel, et al. "Towards the end of the ECSEL Project "iRel40": three years of Intelligent Reliability". In: *Microprocessors and microsystems* (2026), p. 105267. DOI: 10.1016/j.micpro.2026.105267.
- [3] Federica Caruso, Sara Peretti, Nicola Liberati, and Tania Di Mascio. "VirtuOR: A Multidisciplinary Project for Designing and Setting Immersive Virtual Environments for Intraoperative Pain Management". In: *Proceedings of the 16th Biannual Conference of the Italian SIGCHI Chapter*. 2025, pp. 1–12. DOI: 10.1145/3750069.3750436.
- [4] Federica Caruso, Sara Peretti, Maria Chiara Pino, and Tania Di Mascio. "GameDev MentorHub: An "on-the-job" TEL Environment for Video Game Developers". In: *International Conference in Methodologies and intelligent Systems for Technology Enhanced Learning*. Springer. 2025, pp. 148–159. DOI: 10.1007/978-3-032-05070-0_14.
- [5] Federica Caruso, Sara Peretti, Maria Chiara Pino, and Tania Di Mascio. "Risk of Gaming Disorders in Adolescents: A Multiperspective Framework for Video Games Development." In: *Proceedings of International Conference on Computer Supported Education (CSEDU)*. 2025, pp. 838–845. DOI: 10.5220/0013467600003932.
- [6] Sara Peretti, Federica Caruso, Maria Chiara Pino, Marco Giancola, Simonetta D'Amico, and Tania Di Mascio. "The CrazySquare project for music learning in Italian school-age pre-adolescents: integrating technology into educational practice". In: *Journal of Computers in Education* 12.2 (2025), pp. 503–527. DOI: 10.1007/s40692-024-00320-3.
- [7] Sara Peretti, Federica Caruso, Giacomo Valente, Luigi Pomante, and Tania Di Mascio. "Educating artificial intelligence following the child learning development trajectories". In: *Behaviour & Information Technology* (2025), pp. 1–17. DOI: 10.1080/0144929X.2025.2455390.
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- [9] Giacomo Valente, Federica Caruso, Luigi Pomante, and Tania Di Mascio. "Reactive Load Balancing for Sentient Spaces in Absence of Cloud and Fog". In: *Electronics* 14.17 (2025), p. 3458. DOI: 10.3390/electronics14173458.
- [10] V. S. Barletta, F. Caruso, T. Di Mascio, F. Greco, T. Islam, V. Rossano, and H. Xiao. "CyberSecurity Education for Industry and Academia (CSE4IA 2024)". In: *Proceedings of the 2024 International Conference on Advanced Visual Interfaces*. AVI '24. Arenzano, Genoa, Italy: Association for Computing Machinery, 2024. DOI: 10.1145/3656650.3660536.
- [11] F. Caruso, S. Peretti, V. Cofini, S. Necozone, N. Liberati, and T. Di Mascio. "VirtuOR: Immersive Virtual Environments for Pain Management in Operative Rooms - A Demo". In: *Proceedings of the 2024 International Conference on Advanced Visual Interfaces*. AVI '24. Arenzano, Genoa, Italy: Association for Computing Machinery, 2024. DOI: 10.1145/3656650.3656714.
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- [15] S. Peretti, F. Caruso, M. C. Pino, and T. Di Mascio. “Education 4.0: Considering the Teachers’ Attitudes towards ICT Integration in Kindergarten Education”. In: *Proceedings of the 4th Workshop on Technology-Enhanced Learning for Future Citizens (TEL4FC), co-located in 14th International Conference on Methodologies and Intelligent Systems for Technology Enhanced Learning (MIS4TEL2024)*. 2024.
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