

PERSONAL INFORMATION Flavio Bertini



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RESEARCH POSITIONS

September 2021 – onwards

Junior Assistant Professor

Department of Mathematical, Physical and Computer Sciences, University of Parma, Italy

[Italian Scientific Habilitation](#) to Associate Professor, INFO-01/A Informatics

October 2024 – November 2024

Visiting Research

Institute of Computer Science, University of Tartu, Estonia

May 2019 – August 2021

Postdoctoral Research Fellow

Department of Computer Science and Engineering, University of Bologna, Italy

August 2018 – September 2018

Visiting Research

Legal Design Lab – Stanford Law School, Stanford University, United States

May 2018 – April 2019

Postdoctoral Research Fellow

Department of Physics and Astronomy, University of Bologna, Italy

January 2017 – December 2017

Postdoctoral Research Fellow

Interdepartmental Centre “L. Galvani”, University of Bologna, Italy

January 2015 – December 2016

Postdoctoral Research Fellow

Department of Computer Science and Engineering, University of Bologna, Italy

December 2013 – February 2014

Visiting Ph.D. Student

Research Center INRIA Bordeaux - South West, France

EDUCATION & TRAINING

April 2018 – September 2018

Deep Learning Specialization

[Certificate](#) – Coursera Inc.

January 2012 – December 2014

Ph.D. in Computer Science

[Thesis](#) Title: “A New 3D Modelling Paradigm for Discrete Model”

University of Bologna, Italy

November 2011

Master's Degree in Computer Science, *summa cum laude*

University of Bologna, Italy

December 2008 **Bachelor's Degree in Computer Science, *summa cum laude***
University of Bologna, Italy

October 2004 **Graduation in Flute**
Conservatory G.B. Martini, Bologna, Italy

PUBLICATIONS

Journals

- J19 P. Barakati, [F. Bertini](#), E. Corsi, M. Gabbrielli, & D. Montesi, *Luxury Car Data Analysis: a Literature Review*. Data, 2024. DOI 10.3390/data9040048.
- J18 M. L. Petroni, S. Colosimo, L. Brodosi, A. Armandi, [F. Bertini](#), D. Montesi, E. Bugianesi, & G. Marchesini, *Long-term Follow-up of Web-based and Group-based Behavioural Intervention in NAFLD in a Real World Clinical Setting*. Alimentary Pharmacology & Therapeutics, 2023. DOI 10.1111/apt.17768.
- J17 [F. Bertini](#), *Artificial Intelligence and Data Privacy*. Sistemi Intelligenti, Volume 35, Issue 2, 2023. DOI 10.1422/108143.
- J16 D. Beltrami, C. Barletta-Rodolfi, [F. Bertini](#), L. Braglia, L. Calzà, M. Corbo, F. Gasparini, A. Marti, D. Montesi, M. Pisano, M.L. Rusconi, M. Sozzi, C. Tonon, & E. Ghidoni, *Normative Data for COGITAB: an Italian Tablet-based Test Battery Conceived for the Pre-clinical Phase of Alzheimer's Disease*. Applied Neuropsychology: Adult, 2023. DOI 10.1080/23279095.2023.2219797.
- J15 [F. Bertini](#), T. Davtian, & R. Sharma, *Understanding Cycling Mobility: Bologna Case Study*. Computational Urban Science, Volume 3, Issue 1, Article No. 3, 2023. DOI 10.1007/s43762-022-00073-8.
- J14 [F. Bertini](#), R. Sharma, & D. Montesi, *Are Social Networks Watermarking Us or Are We (Un-warely) Watermarking Ourselves?* Journal of Imaging, Volume 8, Issue 5, Article No. 132, 2022. DOI 10.3390/jimaging8050132.
- J13 C. Mizzi, A. Fabbri, G. Colombini, [F. Bertini](#), & A. Bazzani, *A Survival Model to Explain the Statistical Properties of Multimodal Mobility*. Journal of Statistical Mechanics: Theory and Experiment, Volume 2022, 023404, 2022. DOI 10.1088/1742-5468/ac4c40.
- J12 [F. Bertini](#), D. Allevi, G. Lutero, D. Montesi, & L. Calzà, *Automatic Speech Classifier for Mild Cognitive Impairment and Early Dementia*. ACM Transactions on Computing for Healthcare, Volume 3, Issue 1, Article No. 8, 2022. DOI 10.1145/3469089.
- J11 [F. Bertini](#), D. Allevi, G. Lutero, L. Calzà, & D. Montesi, *An Automatic Alzheimer's Disease Classifier Based on Spontaneous Spoken English*. Computer Speech & Language, Volume 72, 101298, 2021. DOI 10.1016/j.csl.2021.101298.
- J10 R. Rouhi, [F. Bertini](#), & D. Montesi, *User Profiles' Image Clustering for Digital Investigations*. Forensic Science International: Digital Investigation, Volume 38, 301171, 2021. DOI 10.1016/j.fsidi.2021.301171.
- J9 R. Rouhi, [F. Bertini](#), & D. Montesi, *No Matter What Images You Share, You Can Probably Be Fingerprinted Anyway*. Journal of Imaging, Volume 7, Issue 2, Article No. 33, 2021. DOI 10.3390/jimaging7020033.
- J8 S. E. Debele, P. Kumar, J. Sahani, B. Marti-Cardona, S.B. Mickovski, L.S. Leo, F. Porcù, [F. Bertini](#), D. Montesi, Z. Vojinovic, & S. Di Sabatino, *Nature-based Solutions for Hydro-meteorological Hazards: Revised Concepts, Classification Schemes and Databases*. Environmental Research, 108799, 2019. DOI 10.1016/j.envres.2019.108799.
- J7 [F. Bertini](#), S. G. Rizzo, & D. Montesi, *Can Information Hiding in Social Media Posts Represent a Threat?* IEEE Computer, Volume 52, Issue 10, pp. 52-60, 2019. DOI 10.1109/MC.2019.2917199.
- J6 S. G. Rizzo, [F. Bertini](#), & D. Montesi, *Fine-grain Watermarking for Intellectual Property Protection*. EURASIP Journal on Information Security, Volume 2019, Issue 1, Article No. 10, 2019. DOI 10.1186/s13635-019-0094-2.

- J5 R. Rouhi, F. Bertini, D. Montesi, X. Lin, Y. Quan, & C.-T. Li, *Hybrid Clustering of Shared Images on Social Networks for Digital Forensics*. IEEE Access, Volume 7, Issue 1, pp. 87288-87302, 2019. DOI 10.1109/ACCESS.2019.2925102.
- J4 C. Mizzi, A. Fabbri, S. Rambaldi, F. Bertini, N. Curti, S. Sinigardi, R. Luzi, G. Venturi, M. Davide, G. Muratore, A. Vannelli, & A. Bazzani, *Unraveling Pedestrian Mobility on a Road Network using ICTs Data During Great Tourist Events*. EPJ Data Science, Volume 7, Issue 1, p. 44, 2018. DOI 10.1140/epjds/s13688-018-0168-2.
- J3 F. Bertini, G. Bergami, D. Montesi, G. Veronese, G. Marchesini, & P. Pandolfi, *Predicting Frailty Condition in Elderly using Multi-Dimensional Socio-Clinical Databases*. Proceedings of the IEEE, Volume 106, Issue 4, pp. 723-737, 2018. DOI 10.1109/JPROC.2018.2791463.
- J2 B. Milosevic, F. Bertini, E. Farella, & S. Morigi, *A SmartPen for 3D Interaction and Sketch-based Surface Modeling*. In The International Journal of Advanced Manufacturing Technology, Volume 84, Issue 5, pp. 1625-1645, 2015. DOI 10.1007/s00170-015-7828-1.
- J1 F. Bertini, C. Destro, & D. Montesi, *Balancing Calories with Smartphone*. In European Journal for Biomedical Informatics, Volume 11, Issue 3, pp. 13-21, 2015.

Conferences

- C26 F. Bertini, A. Benetton, & D. Montesi, *Distributed Ledger and Text Watermarking for Fine-Grain Provenance Checking of Textual Content*. In Companion Proceedings of the ACM Web Conference 2025, ACM Web Conference 2025, *In press*.
- C25 M. Raud, A. Hadachi, R. Sharma, & F. Bertini, *Decision-making in Urban Trajectories of Bike Users: a Preliminary Study*. In Workshops Proceedings of the Extending Database Technology/The International Conference on Database Theory Joint Conference, EDBT/ICDT 2025, *In press*.
- C24 M. Raud, A. Hadachi, R. Sharma, & F. Bertini, *Studying the Impact of Infrastructure on Cyclist Route Selection: Real-world Data Mining*. In Proceedings of the 15th IEEE International Conference on Knowledge Graphs ICKG2024, pp. 291-300. DOI 10.1109/ICKG63256.2024.00044 ISBN 979-8-3315-0883-8.
- C23 F. Bertini, A. Dal Palù, F. Fabiano, A. Formisano, & F. Zaglio, *Data2Concept2Text: an Explainable Multilingual Framework for Data Analysis Narration*. In Proceedings of the 40th International Conference on Logic Programming, ICLP 2024, pp. 139-152, vol. 416. DOI 10.4204/EPTCS.416.13 ISSN 2075-2180.
- C22 F. Bertini, A. Dal Palù, F. Fabiano, A. Formisano, & F. Zaglio, *Concept2Text: an Explainable Multilingual Rewriting of Concepts Into Natural Language*. In Proceedings of the 39th Italian Conference on Computational Logic, CILC 2024, vol. 3733. ISSN 1613-0073.
- C21 F. Bertini, D. Beltrami, P. Barakati, L. Calzà, E. Ghidoni, & D. Montesi, *A Web-based Application for Screening Alzheimer's Disease in the Preclinical Phase*. 3rd IEEE International Conference on ICT Solutions for eHealth, in conjunction with the 28th IEEE Symposium on Computers and Communications, ISCC 2023, pp. 1-6. DOI 10.1109/ISCC58397.2023.10218229 ISBN 979-8-3503-0049-9.
- C20 F. Bertini, A. Dal Palù, A. Formisano, A. Pintus, S. Rainieri, & L. Salvarani, *Students' Careers and AI: a Decision-making Support System for Academia*. 3rd National Conference on Artificial Intelligence, Ital-IA 2023, pp. 272-277, vol. 3486. ISSN 1613-0073.
- C19 V. Bonnici, V. Arceri, A. Diana, F. Bertini, E. Iotti, A. Levante, V. Bernini, E. Neviani, & A. Dal Palù, *BIOCHAIN: Towards a Platform for Securely Sharing Microbiological Data*. In Proceedings of the 27th International Database Engineered Applications Symposium, pp. 59-63, ACM, 2023. DOI 10.1145/3589462.3589501 ISBN 979-8-4007-0744-5.
- C18 G. Gabrielli, A. Melioli, & F. Bertini, *High-dimensional Data from Financial Statements for a Bankruptcy Prediction Model*. In Proceedings of the IEEE 39th International Conference on Data Engineering Workshops, ICDEW 2023. DOI 10.1109/ICDEW58674.2023.00005 ISBN 979-8-3503-2244-6.
- C17 S. Bottoni, A. Trombetta, F. Bertini, D. Montesi, F. Bonin, A. Pascale, M. Gleize, & P. Tommasi, *Graph-based Tool for Exploring PubMed Knowledge Base*. In 2023 IEEE 39th International Conference on Data Engineering, ICDE 2023, pp. 3611-3614. DOI 10.1109/ICDE55515.2023.00280 ISBN 979-8-3503-2228-6 ISSN 1063-6382.

- C16 S. Bottoni, A. Trombetta, [F. Bertini](#), D. Montesi, F. Bonin, A. Pascale, M. Gleize, & P. Tommasi, *GASTon: A Graph-Exploration System for Indexing, Annotating and Visualizing PubMed Articles to Enhance the Analysis of Social Determinants of Health*. In Proceedings of the 16th International Joint Conference on Biomedical Engineering Systems and Technologies, HEALTHINF 2023, pp.424-431, vol. 5. DOI 10.5220/0011714900003414 ISBN 978-989-758-631-6 ISSN 2184-4305.
- C15 [F. Bertini](#), D. Allevi, G. Lutero, L. Calzà, & D. Montesi, *A Cross-language Dementia Classifier: a Preliminary Study*. In Proceedings of the IEEE International Conference on Metrology for Extended Reality, Artificial Intelligence and Neural Engineering, pp. 438-443, IEEE, 2022. DOI 10.1109/MetroXRINE54828.2022.9967558.
- C14 S. Branchetti, [F. Bertini](#), & D. Montesi, *Grayscale Text Watermarking*. In Proceedings of the 26th International Database Engineered Applications Symposium, pp. 166-170, ACM, 2022. DOI 10.1145/3548785.3548794 ISBN 978-1-4503-9709-4.
- C13 [F. Bertini](#), A. Dal Palù, F. Fabiano, & E. Iotti, *Caring for xAI*. In Proceedings of the 37th Italian Conference on Computational Logic, CILC 2022, pp. 47-60, vol. 3204. ISSN 1613-0073.
- C12 G. Bergami, [F. Bertini](#), & D. Montesi, *Hierarchical Embedding for DAG Reachability Queries*. In Proceedings of the 24th International Database Applications & Engineering Symposium, Article No. 24, ACM, 2020. DOI 10.1145/3410566.3410583 ISBN 978-1-4503-7503-0.
- C11 G. Bergami, [F. Bertini](#), & D. Montesi, *On Approximate Nesting of Multiple Social Network Graphs: a Preliminary Study*. In Proceedings of the 23rd International Database Applications & Engineering Symposium, Article No. 40, ACM, 2019. DOI 10.1145/3331076.3331081 ISBN 978-1-4503-6249-8.
- C10 R. Rouhi, [F. Bertini](#), D. Montesi, & C.-T. Li, *Social Network Forensics through Smartphones and Shared Images*. In Proceedings of the 7th International Workshop on Biometrics and Forensics, pp. 1-6, IEEE, 2019. DOI 10.1109/IWBF.2019.8739237 ISBN 978-1-7281-0622-9.
- C9 R. Rouhi, [F. Bertini](#), & D. Montesi, *A Cluster-based Approach of Smartphone Camera Fingerprint for User Profiles Resolution within Social Network*. In Proceedings of the 22nd International Database Engineering & Applications Symposium, pp. 287-291, ACM, 2018. DOI 10.1145/3216122.3216123 ISBN 978-1-4503-6527-7.
- C8 S. G. Rizzo, [F. Bertini](#), D. Montesi, & C. Stomeo, *Text Watermarking in Social Media*. In Proceedings of the 2017 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining, pp. 208-211, ACM, 2017. DOI 10.1145/3110025.3116203 ISBN 978-1-4503-4993-2.
- C7 S. G. Rizzo, [F. Bertini](#), & D. Montesi, *Text Authorship Verification through Watermarking*. In Proceedings of the European Intelligence and Security Informatics Conference, pp. 168-171, IEEE, 2016. DOI 10.1109/EISIC.2016.043.
- C6 S. G. Rizzo, [F. Bertini](#), & D. Montesi, *Content-preserving Text Watermarking through Unicode Homoglyph Substitution*. In Proceedings of the 20th International Database Engineering & Applications Symposium, pp. 97-104, ACM, 2016. DOI 10.1145/2938503.2938510 ISBN 978-1-4503-4118-9.
- C5 [F. Bertini](#), G. Bergami, D. Montesi, & P. Pandolfi, *Predicting Frailty in Elderly People using Socio-clinical Databases*. In 5th Workshop on Data Mining for Medicine and Healthcare, pp. 65-73, 2016.
- C4 [F. Bertini](#), R. Sharma, A. Ianni, & D. Montesi, *Social Media Investigations using Shared Photos*. In Proceedings of the International Conference on Computing Technology, Information Security and Risk Management, pp. 47-60, 2016. ISBN 978-1-941968-31-4.
- C3 [F. Bertini](#), R. Sharma, A. Ianni, & D. Montesi, *Smartphone Verification and User Profiles Linking across Social Networks by Camera Fingerprinting*. In Digital Forensics and Cyber Crime, Springer International Publishing, pp. 176-186, 2015. DOI 10.1007/978-3-319-25512-5_12 ISBN 978-3-319-25511-8.
- C2 [F. Bertini](#), R. Sharma, A. Ianni, & D. Montesi, *Profile Resolution across Multilayer Networks through Smartphone Camera Fingerprint*. In Proceedings of the 19th International Database Engineering & Applications Symposium, pp. 23-32, ACM, 2015. DOI 10.1145/2790755.2790765 ISBN 978-1-4503-3414-3.

- C1 F. Bertini & S. Morigi, *Deformation by Discrete Elastica*. In Proceedings of International Conferences in Central Europe on Computer Graphics, Visualization and Computer Vision, pp. 223-232, 2013. ISBN 978-80-86943-74-9.

Abstracts & Posters

- AP20 C. Barattieri di San Pietro, N. Bianchini, M. Bosia, J. Sapienza, F. Pacchioni, M. Nesic, B. Scalingi, V. Bambini, & F. Bertini, *Toward a Digital Twin Patient for Schizophrenia*. XXV Congresso Internazionale dell'Associazione Italiana di Linguistica Applicata, AltLA 2025, Macerata, Italy, February 19–21, 2025.
- AP19 C. Barattieri di San Pietro, B. Scalingi, F. Frau, G. Agostoni, M. Bechi, R. Cavallaro, M. Bosia, N. Bianchini, F. Bertini, & V. Bambini, *Distributional Semantics, NLP, and Machine Learning: a Combined Approach to Language Analysis in Schizophrenia*. Discourse in Psychosis Satellite Meeting 2024, Pavia, Italy, April 8, 2024.
- AP18 A. Pintus, A. dal Palù, F. Bertini, & L. Salvarani, *Monitoring Student Careers to Enhance Strategic Skills and Reduce University Dropout Rates*. 4th National Conference on Faculty Development, Genova, Italy, January 26–27, 2023.
- AP17 M. L. Petroni, S. Colosimo, L. Brodosi, F. Bertini, D. Montesi, & G. Marchesini, *Educational-behavioural Intervention in NAFLD: 5-year Follow-up of the Online FLIP Intervention Project*. NAFLD Study Group Annual Meetings, Rome, Italy, November 23, 2022.
- AP16 V. Bonnici, V. Arceri, F. Bertini, E. Iotti, & A. Dal Palù, *BIOCHAIN-AI: a Platform for Securely Sharing and Analysing Microbiological Data*. 18th Annual Meeting of the Bioinformatics Italian Society, Verona, Italy, June 27–29, 2022.
- AP15 F. Bertini, D. Allevi, G. Luterio, L. Calzà, & D. Montesi, *Spontaneous Speech Classifier for Alzheimer's Disease - Toward a Cross-language End-to-End Model*. Sweit ageing - Swedish and Italian perspectives on ageing, University of Gothenburg, Gothenburg, Sweden, June 13–15, 2022.
- AP14 D. Montesi & F. Bertini, *Can Digital Regulation Rebalance the Consumer Role Fostering Competition?* CCP Annual Conference 2021, Rethinking Consumer Policy: Lessons learned and options for reform, London, United Kingdom, June 25, 2021.
- AP13 L. S. Leo, S. Vranić, M. Kalas, S. E. Debele, F. Bertini, J. Ommer, D. Montesi, I. Pavlova, P. Kumar, & S. Di Sabatino, *A Geospatial Information Knowledge Platform for NBS Tackling Hydro-meteorological Hazards: Key Features and Innovative Aspects*. European Geosciences Union (EGU) General Assembly 2020, Vienna, Austria, May 3–8, 2020. DOI 10.5194/egusphere-egu2020-18851.
- AP12 J. Ommer, S. Vranić, L. S. Leo, M. Kalas, S. E. Debele, F. Bertini, D. Montesi, I. Pavlova, P. Kumar, & S. Di Sabatino, *An Engine for Social-ecological Risk Analysis and NBS Recommendation to Support Risk Mitigation Management*. European Geosciences Union (EGU) General Assembly 2020, Vienna, Austria, May 3–8, 2020. DOI 10.5194/egusphere-egu2020-21484.
- AP11 S. Vranić, M. Kalas, L. S. Leo, J. Ommer, F. Bertini, D. Montesi, & S. Di Sabatino, *INSPIRE in the Context of Nature-Based Solutions*. INSPIRE Conference 2020, Dubrovnik, Croatia, May 12–15, 2020.
- AP10 D. Montesi, F. Bertini, G. Buratti, & S. Sapienza, *AI, Digital Platforms and Competition*. CCP Annual Conference 2019, Machine Learning and AI as Business Tools: Threat or blessing for competition?, London, United Kingdom, June 6–7, 2019.
- AP9 R. Rouhi, F. Bertini, & D. Montesi, *Digital Footprints in Social Networks*. 16th International Summer School for Advanced Studies on Biometrics for Secure Authentication: Biometrics and Forensic Science in the Deep Learning Era, Alghero, Italy, May 27–31, 2019.
- AP8 A. Bazzani, S. Rambaldi, A. Fabbri, C. Mizzi, F. Bertini, S. Sinigardi, N. Curti, R. Luzi, G. Venturi, D. Micheli, G. Muratore, & A. Vannelli, *Modeling Pedestrian Mobility using ICTs Data: the Problem of Tourist Flows in Venice*. Conference on Complex Systems (CCS), Thessaloniki, Greece, September 23–28, 2018.
- AP7 D. Montesi, F. Bertini, & S. G. Rizzo, *Text Watermarking for Fake News*. Seminário Internacional Brasil-União Europeia Fake News: Experiências e Desafios, Tribunal Superior Eleitoral, Brasília, Brasil, June 21, 2018.

- AP6 F. Bertini, G. Bergami, D. Montesi, G. Veronese, G. Marchesini, & P. Pandolfi, *Predicting Frailty Condition in Elderly using Multi-Dimensional Socio-Clinical Databases*. Conference on Demonstrating Results of Big Data Initiatives in Healthcare, Rotterdam, The Netherlands, May 17–18, 2018.
- AP5 D. Montesi, F. Bertini, & T. Ognibene, *Digital Platforms: a New Dimension for Competition?* UK Regulators Network Annual Conference, Office for National Statistics, London, United Kingdom, June 19, 2017.
- AP4 D. Montesi & F. Bertini, *Internet of Things or Internet of Traces?* School of Law, University of Bologna, Bologna, Italy, November 14, 2016.
- AP3 F. Bertini, R. Sharma, A. Ianni, & D. Montesi, *Matching User Profiles in Multilayer Networks through Smartphone Camera Fingerprint*. XXXV Sunbelt Conference of the International Network for Social Network Analysis (INSNA), Brighton, United Kingdom, June 23–28, 2015.
- AP2 D. Montesi, S. G. Rizzo, F. Bertini, R. Sharma, & T. Ognibene, *Big Data & Social Science: a Data Driven Society*. CCP Annual Conference 2015, Competition in the Digital Age, London, United Kingdom, June 19, 2015.
- AP1 D. Montesi & F. Bertini, *Smart Health in Smart City*. The e-Health Paradigm for Smart Cities, Academy of Sciences of Bologna Institute, Bologna, Italy, March 25, 2015.

Other Publications

- O4 A. Pintus, A. Dal Palù, F. Bertini, & L. Salvarani, *Monitorare le Carriere degli Studenti per Promuoverne le Competenze Strategiche e Ridurre la Dispersione Universitaria*. Quaderni del GLIA, Volume 2, Issue 2, pp.153-162, 2024, Genova University Press. ISSN 2975-0075.
- O3 F. Bertini & D. Montesi, *L'Intelligenza Artificiale in Sanità: il Ruolo dei Dati*. Intelligenza Artificiale, dispositivi medici e diritto, October 2023, Giappichelli Editore. ISBN 979-1-221-10308-3.
- O2 R. Rouhi, F. Bertini, & D. Montesi, *Shared Images and Camera Fingerprinting may Lead to Privacy Issues*. Securing Social Identity in Mobile Platforms: Technologies for Security, Privacy and Identity Management, May 2020, Springer International Publishing. DOI 10.1007/978-3-030-39489-9 ISBN 978-3-030-39488-2.
- O1 D. Montesi, F. Bertini, R. Sharma, S. G. Rizzo, & T. Ognibene, *Digital Platforms: Has the Time come for Competition Regulation?* In CCP Research Bulletin, Has Globalisation left the European Commission behind? Geographical market definition for merger appraisal, pp. 18-20, Issue 31, Spring 2016, Centre for Competition Policy, University of East Anglia, Norwich Research Park, UK.

HONORS, AWARDS, & GRANTS

Best Paper Awards

- “A Web-Based Application for Screening Alzheimer’s Disease in the Preclinical Phase” 28th IEEE Symposium on Computers and Communications (IEEE ISCC 2023)

Invited Talks

- “Automatic Alzheimer’s Disease Classifier based on Spontaneous Speech” Institute of Computer Science, University of Tartu, Estonia - November 5, 2024
- “Spontaneous Speech Classifier for Alzheimer’s Disease - Toward a Cross-language End-to-End Model” University of Gothenburg, Sweden - June 13, 2022
- “Predicting Frailty Condition in Elderly using Multi-Dimensional Socio-Clinical Databases” Workshop on Problems in Discrete Dynamics: from Biochemical Systems to Rare Events, Networks, Clustering and Related Topics, Grosseto, Italy - June 22, 2018

Mobility Grants

- University of Tartu, Institute of Computer Science
October - November 2024
TransNational Access, SoBigData++ Project grant agreement n. 871042
- Stanford University, Legal Design Lab – Stanford Law School
August - September 2018
Marie Skłodowska-Curie grant agreement n. 690974

- Research Fundings**
- Project: [LLMs meet Static Analysis: a large-scale evaluation of LLMgenerated code](#)
University of Parma Research Fund, 2024, grant n. CUP D93C24001250005
Received funds: €14,580, co-applicant
 - Project: [A Biomolecular, Biosources and Bioactivity Taxonomy to unlock the potential of Biodiversity through a Web-based platform](#)
Recovery and Resilience Plan, 2024, grant n. CUP D93C24000820001
Received funds: €289,500, co-applicant
 - Project: [AI4ChemoBrain - Machine learning/artificial intelligence models for personalised medicine: development of a predictive demonstrator of cognitive impairment during chemotherapy based on subject-derived omics and phenotypic data](#)
Emilia-Romagna Region, 2023, grant n. CUP E77G22000630007
Received funds: €694,525, co-applicant
 - Project: [ARICSAI: Automated Reasoning Interpretation of Ct-Scans and xAI](#)
National Group for Scientific Computing, 2023, grant n. CUP E53C22001930001
Received funds: €3,850, co-applicant
 - Project: [BIOCHAIN-AI: a platform for securely sharing and analysing microbiological data](#)
University of Parma Research Fund, 2022, grant n. CUP D91B21005370003
Received funds: €9,084, co-applicant
 - Project: [MIPEPS: Regional Database to Improve the Care Pathways in the Emergency Room](#)
Emilia-Romagna Region, 2021, grant n. CUP E45J19000810002 / FIN-RER_PR_2020_06
Received funds: €246,000, main applicant

SCIENTIFIC COMMITTEES

- Expert Evaluator**
- Recovery and Resilience Plan of the Slovak Republic - Topic: Support of the researchers in R2 - R4 categories - Physical, Technical Sciences and Mathematics, Výskumná agentúra - [Slovak Research Agency](#), Expert Evaluator 2024.
 - Horizon Europe Framework Programme - Topic: HORIZON-CL4-2023-DATA-01-02, [Euro-pean Commission](#) - Research Executive Agency, Expert Evaluator 2023.
 - Horizon Europe Framework Programme - Topic: HORIZON-CL4-2022-DATA-01-01, [Euro-pean Commission](#) - Research Executive Agency, Expert Evaluator 2022.
 - Regional Operational Programme - European Regional Development Fund ROP ERDF 2014-2020 program of the [Tuscany Region](#) in Italy, Scientific & Technical Review Committee 2021.
 - Advanced Manufacturing and Engineering AME 2020 program of the Agency for Science, Technology and Research [A*STAR](#) in Singapore, Scientific & Technical Review Committee 2020.

- Technical Program Committee**
- [AMIA](#) - American Medical Informatics Association Annual Symposium, 2024 and 2025.
 - [AMIA CIC](#) - Clinical Informatics Conference, 2024 and 2025.
 - [AMIA IS](#) - Informatics Summit, 2025.
 - [C³S²E](#) - 10th International C* Conference on Computer Science & Software Engineering.
 - [DATA ANALYTICS](#) - 9th, 10th, 11th, 12th, 13th, and 14th International Conference on Data Analytics.
 - [DBKDA](#) - 12th, 13th, 14th, 15th, 16th, and 17th International Conference on Advances in Databases, Knowledge, and Data Applications.
 - [FAIEMA](#) - 3rd International Conference on Frontiers of Artificial Intelligence, Ethics, and Multidisciplinary Applications.
 - [ECAI](#) - 27th and 28th European Conference on Artificial Intelligence.
 - [EKAW](#) - 24th International Conference on Knowledge Engineering and Knowledge Management.
 - [ICGDA](#) - 8th International Conference on Geoinformatics and Data Analysis.
 - [SAC KNLP](#) - 40th ACM/SIGAPP Symposium On Applied Computing, 2025 Special Track on Knowledge and Natural Language Processing.

- Guest Editor**
- *Large Language Models: Theories, Methodologies and Real-World Applications in Health-care*, Special Issue - Applied System Innovation, 2023, ISSN: 2571-5577, [website](#).
 - *Deep Learning and Computer Vision for Object Recognition*, Special Issue - Applied Sciences, 2022, ISSN: 2076-3417, [website](#).

- *Recent Trends in Large-Data Analytics and Machine Learning for Healthcare*, Special Issue - Sensors, 2022, ISSN: 1424-8220, [website](#).
- *The use of Gamification, Serious Game and Virtual/Augmented Reality for Psychological Interventions and Mental Health*, Special Issue - Frontiers in Virtual Reality, 2022, ISSN: 2673-4192, [website](#).

External Reviewer

- ACM Computing Surveys, ISSN: 0360-0300
- ACM Transactions on Multimedia Computing, Communications, and Applications, ISSN: 1551-6857
- Artificial Intelligence in Medicine, Elsevier, ISSN: 0933-3657
- Artificial Intelligence Review, Springer, ISSN: 1573-7462
- Blockchain: Research and Applications, Elsevier, ISSN: 2666-9536
- Computer, IEEE, ISSN: 0018-9162
- Discover Artificial Intelligence, Springer, ISSN: 2731-0809
- Expert Systems with Applications, Elsevier, ISSN: 0957-4174
- Healthcare Analytics, Elsevier, ISSN: 2772-4425
- IEEE Access, ISSN: 2169-3536
- IEEE Journal of Biomedical and Health Informatics, ISSN: 2168-2194
- International Journal of Data Science and Analytics, Springer, ISSN: 2364-415X
- International Journal of Medical Informatics, Elsevier, ISSN: 1386-5056
- Journal of Big Data, Springer, ISSN: 2196-1115
- Journal of Computers & Security, Elsevier, ISSN: 0167-4048
- Journal of Future Generation Computer Systems, Elsevier, ISSN: 0167-739X
- Journal of Information Security and Applications, Elsevier, ISSN: 2214-2126
- Journal of Infrastructure, Policy and Development, EnPress, ISSN: 2572-7931
- Journal of Intelligent Information Systems, Springer, ISSN: 0925-9902
- Journal of Web Semantics, Elsevier, ISSN: 1873-7749
- Machine Learning with Applications, Elsevier, ISSN: 2666-8270
- Philosophy & Technology, Springer, ISSN: 2210-5441
- PLOS ONE, Public Library of Science, ISSN: 1932-6203
- Proceedings of the IEEE, ISSN: 0018-9219
- Scientific Reports, Nature Portfolio, ISSN: 2045-2322
- Smart Health, Elsevier, ISSN: 2352-6483
- Social Network Analysis and Mining, Springer, ISSN: 1869-5469
- The Lancet Regional Health - Western Pacific, Elsevier, ISSN: 2666-6065

Technical Advisor

- Information Systems and Digital Forensics Advisor. *May 2013 – onwards*. Montesi Consulting S.r.l.

TEACHING & MENTORING

Courses

September 2023 – onwards	Professor: Database . Department of Mathematical, Physical and Computer Sciences, University of Parma, Parma, Italy.
September 2021 – onwards	Professor: Big Data and Data Mining . Department of Mathematical, Physical and Computer Sciences, University of Parma, Parma, Italy.
September 2021 – September 2023	Professor: Operating system . Department of Mathematical, Physical and Computer Sciences, University of Parma, Parma, Italy.
October 2018 – September 2024	Teaching Assistant: Database . Department of Computer Science and Engineering, University of Bologna, Bologna, Italy.
March 2021 – September 2021	Adjunct Professor: Big Data and Data Mining . Department of Mathematical, Physical and Computer Sciences, University of Parma, Parma, Italy.
October 2015 – September 2021	Teaching Assistant: Information Technology Skills . School of Modern, Post-Colonial And Comparative Literatures, University of Bologna, Bologna, Italy.
October 2017 – September 2020	Adjunct Professor: Computer Science . School of Pharmacy, Biotechnology and Sport Science, University of Bologna, Bologna, Italy.
January 2015 – July 2016	Teaching Assistant: Information System for Management . Master Professional MBA. Foundation Bologna Business School, Bologna, Italy.
October 2013 – September 2017	Teaching Assistant: Programming Laboratory . Department of Computer Science and Engineering, University of Bologna, Bologna, Italy.

January 2013 – June 2014 Teaching Assistant: [Programming for Physics](#). Department of Physics and Astronomy, University of Bologna, Bologna, Italy.

Doctoral Thesis Supervisor

- D4 S. Branchetti, *Ongioing*. Ph.D. in Computer Science, University of Bologna, *Expected in 2027*.
- D3 P. Barakati, *Ongioing*. Ph.D. in Computer Science, University of Bologna, *Expected in 2026*.
- D2 A.B. Taşcıoğlu, *Ongioing*. Ph.D. in Computer Science, University of Bologna, *Expected in 2026*.
- D1 R. Rouhi, *Classification and Clustering of Shared Images on Social Networks and User Profile Linking*. Ph.D. in Computer Science, University of Bologna, 2020, [Thesis](#).

Master's Thesis Supervisor

- M18 N. Bianchini, *Artificial Intelligence in Psychiatry: Towards a Digital Twin for Schizophrenia through Text Classification and Generation*. Master of Science in Computer Science, University of Parma, 2024, [Thesis](#).
- M17 A. Benetton, *Textual Provenance Sealing and Verification*. Master of Science in Computer Science, University of Bologna, 2024, [Thesis](#).
- M16 P. L. Trespidi, *Study of Echo Chambers in News Media Aggregators*. Master of Science in Computer Science, University of Parma, 2024, [Thesis](#).
- M15 M. Raud, *The Influence of Infrastructure to Cyclist Route Choice in Bologna*. Master of Science in Conversion Master in IT, University of Tartu, 2024, [Thesis](#).
- M14 S. Branchetti, *Testing Attacks on Structural Text Watermarking Techniques*. Master of Science in Computer Science, University of Bologna, 2023, [Thesis](#).
- M13 E. A. Riega Calderon, *Analysis of Information Technology Service Usage during the Academic Career of Students*. Master of Science in Computer Science, University of Parma, 2022, [Thesis](#).
- M12 G. O. Nnadi, *Text Summarization: Techniques and Evaluation*. Master of Science in Computer Science, University of Parma, 2022, [Thesis](#).
- M11 A. Melioli, *Corporate Bankruptcy Prediction through Machine Learning Models*. Master of Science in Computer Science, University of Parma, 2022, [Thesis](#).
- M10 G. Calarota, *On Authorship Attribution*. Master of Science in Computer Science, University of Bologna, 2021, [Thesis](#).
- M9 A. Longo, *Analysis of Clinical Pathways in the Emergency Department*. Master of Science in Computer Science, University of Bologna, 2021, [Thesis](#).
- M8 L. Massimiliani, *Classification and Clustering of Video Fingerprints: Preliminary Results*. Master of Science in Computer Science, University of Bologna, 2021, [Thesis](#).
- M7 T. Davtyan, *Forecasting Bicycle Demand: Bologna Case Study*. Master of Science in Computer Science, University of Tartu, 2020, [Thesis](#).
- M6 G. Lutero, *A Tool for Data Analysis using Autoencoders*. Master of Science in Computer Science, University of Bologna, 2020, [Thesis](#).
- M5 D. Allevi, *Speech Analysis for Automatic Identification of Mild Cognitive Impairment through Autoencoders*. Master of Science in Computer Science, University of Bologna, 2019, [Thesis](#).
- M4 E. Valguarnera, *Extraction of Pattern Noise from Videos for the Identification of a Source Camera*. Master of Science in Computer Science, University of Bologna, 2019, [Thesis](#).
- M3 S. Beccaletto, *Leap Aided Modelling & Animation*. Master of Science in Computer Science, University of Bologna, 2017, [Thesis](#).
- M2 M. Tiscornia, *Cyber Risk: A New Approach to Evaluation*. Master of Science in Computer Science, University of Bologna, 2016, [Thesis](#).
- M1 L. Rinaldi, *Leap Aided Modelling (LAM) in Blender*. Master of Science in Computer Science, University of Bologna, 2016, [Thesis](#).

Bachelor's Thesis Supervisor

- B22 R. Persiani, *Prediction of Corporate Credit Score using Machine Learning Models*. Bachelor in Computer Science, University of Parma, 2024, [Thesis](#).
- B21 F. Malaguti, *ensorFlow and Alzheimer's Testing: Some Experimental Results*. Bachelor in Computer Science, University of Bologna, 2024, [Thesis](#).
- B20 D. Ravasini, *Languages for Ontologies: a Preliminary Study for the Creation of an Ontology in the Climate Domain*. Bachelor in Computer Science, University of Parma, 2023, [Thesis](#).
- B19 T. C. Xia, *Subtopic-oriented Biomedical Summarization using Pretrained Language Models*. Bachelor in Computer Science, University of Bologna, 2023, [Thesis](#).
- B18 A. Capriotti, *Intellectual Property of AI Systems: a Preliminary Study*. Bachelor in Computer Science, University of Bologna, 2023, [Thesis](#).
- B17 E. Corsi, *Luxury Cars Data Analysis: a Preliminary Study*. Bachelor in Computer Science, University of Bologna, 2023, [Thesis](#).
- B16 G. Di Gregorio, *Creation of an Image and Video Dataset for Digital Forensic Studies Applied to Social Networks*. Bachelor in Computer Science, University of Bologna, 2023, [Thesis](#).
- B15 N. Acquaviva, *Migration and Integration of a Web Application into a Container*. Bachelor in Computer Science, University of Bologna, 2022, [Thesis](#).
- B14 A. Villa, *Design and Development of a Platform for Managing Meteorological Data*. Bachelor in Computer Science, University of Parma, 2022, [Thesis](#).
- B13 N. Bianchini, *Analysis of Academic Careers using Clustering Algorithms*. Bachelor in Computer Science, University of Parma, 2022, [Thesis](#).
- B12 M. Ahmed Mohamed Youssef, *Design and Development of a Framework for Industrial Internet of Things Data*. Bachelor in Computer Science, University of Parma, 2021, [Thesis](#).
- B11 M. Righini, *Heartsentinel: Design and Development of an Application for Detecting Arrhythmias and Atrial Fibrillation*. Bachelor in Computer Science, University of Parma, 2021, [Thesis](#).
- B10 N. Bertoli, *Predictions of Academic Careers for First-Year Students in the Computer Science Program at the University of Parma using Machine Learning*. Bachelor in Computer Science, University of Parma, 2021, [Thesis](#).
- B9 M. Tritella, *Information's Coding Standards in Healthcare*. Bachelor in Computer Science, University of Bologna, 2021, [Thesis](#).
- B8 F. Perrina, *Oracle vs Google: a Preliminary Analysis*. Bachelor in Computer Science, University of Bologna, 2021, [Thesis](#).
- B7 L. Lucente, *Design and Development of a Web Application for Social Network Analysis in Forensic Contexts*. Bachelor in Computer Science, University of Bologna, 2021, [Thesis](#).
- B6 S. Branchetti, *Colour Watermarking Techniques for Text-based Media*. Bachelor in Computer Science, University of Bologna, 2020, [Thesis](#).
- B5 F. Paiola, *An Access Tracking System for Google Drive Documents*. Bachelor in Computer Science, University of Bologna, 2020, [Thesis](#).
- B4 O. Gana, *Google Drive: An Experimental Project in Cloud Storage Forensics*. Bachelor in Computer Science, University of Bologna, 2019, [Thesis](#).
- B3 R. Marchesi, *Frailty in the Elderly Population: a Study of Predictive Models*. Bachelor in Computer Science, University of Bologna, 2019, [Thesis](#).
- B2 C. Stomeo, *Text Watermarking and Social Networks: An Experimental Study*. Bachelor in Computer Science, University of Bologna, 2016, [Thesis](#).
- B1 D. Piergigli, *Social Networks and Watermarking: Some Preliminary Results*. Bachelor in Computer Science, University of Bologna, 2016, [Thesis](#).

PUBLIC ENGAGEMENT

- April 2025 [Artificial Intelligence for Business](#). Aldini Valeriani Foundation, Industrial Management School, Bologna, Italy.
- January 2022 [Big data analytics and Predictive maintenance 4.0](#). ACMI Bottling and Packaging Systems, Parma, Italy.

- September 2021 [Towards Data-driven Healthcare: FSE and EHR as Tools for Governing Public Health](#). Assinter Academy, Bologna, Italy.
- June 2021 [Technological Architectures for a New National Health Information System](#). Assinter Academy, Bologna, Italy.
- November 2014 [Augmented Reality for Industrial Applications](#). T3LAB - Industrial Research and Technological Transfer Laboratory, Bologna, Italy.

MAIN REFERENCES

- [Prof. Chiara Barattieri di San Pietro](#) (*a current colleague*)
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