

University Academic Curriculum Vitae

Personal information Name: Marina Andrić

Education since leaving school

- 02/2013 – 07/2017 - **PhD in Computer Science**
Thesis title: Programming Abstractions for Data Sharing in Distributed Spaces
Supervisors: Prof. Rocco De Nicola (IMT Lucca), Prof. Alberto Lluch Lafuente (DTU Denmark)
Institution: IMT School for Advanced Studies Lucca (Italy)
- 10/2015 – 01/2016 - **Visiting Researcher**
Institution: Formal Methods Section, DTU Denmark
- 10/2005 – 12/2011 - **Diploma in Mathematics**
GPA: 9.50/10.00
Institution: Computer Science Department, Faculty of Mathematics, University of Belgrade (Serbia)

Professional experience

From / to	Job title	Name of academic Institution	Academic level	Responsibilities
03/2026 – present	Assistant Professor	Free University of Bolzano-Bozen	RTDa	Research on machine learning and recommender systems for decision support in sport and health; teaching activities in computer science
08/2023 - 02/2026	Researcher	Bruno Kessler Foundation	Researcher	Research into machine learning and data-driven methods for stress detection from bio-signals and public health monitoring.
12/2019 - 07/2023	Research assistant	Free University of Bozen-Bolzano	Postgraduate	Research in sport data analytics; teaching activities in computer science
11/2017 - 10/2019	Data analyst/ Software developer	Belit S.r.l.		Development of prediction models and data infrastructure in Horizon 2020 projects; data analysis for public health research
02/2012 - 01/2013	Software engineer	PSTech S.r.l		Designed software test plans for Plantronics devices

- 08/2023 – 03/2026
Postdoctoral Researcher – Bruno Kessler Foundation, Trento Digital Health and Wellbeing Center, Intelligent Digital Agents Unit
Projects: iNEST (NextGenerationEU); TrustAlert (Fondazione Compagnia di San Paolo)
Activities: Machine learning models for stress phase detection using biomarker data; pilot study design on prenatal stress prediction via wearable devices; data curation and statistical/ML analysis of hospital admission and discharge records.
- 12/2019 – 07/2023
Research Assistant – Free University of Bolzano-Bozen, Faculty of Engineering
Project: Sensors and Data for the Analysis of Sport Activities (EFRE-FESR)
Activities: IMU and video data collection and preprocessing; predictive modeling; literature review; development of recommender systems for climbing routes.

- 11/2017 – 11/2019
Data Analyst & Software Developer – Belit, Belgrade
Projects: City4Age, PULSE (Horizon 2020)
Activities: Predictive models for cognitive and frailty risk; data management systems; data analysis of urban well-being indicators.
- 02/2012 – 01/2013
Software Engineer – PSTech, Belgrade
Activities: Design and implementation of test plans and scripts for audio and communication products.

Experience in academic teaching

- **Computer Programming**, Free University of Bozen-Bolzano (2022–2023, 1st semester): Teaching assistant for Java programming laboratories (Bachelor, 1st year, Computer Science track, ~30 students, 30 lab hours, 9 ECTS, English).
- **Computer Programming**, Free University of Bozen-Bolzano (2021–2022, 1st semester): Teaching assistant for Java programming. Held office hours (Bachelor, 1st year, Computer Science and Business Informatics tracks, ~60 students, 30 office hours, 9 ECTS, English).
- **Fundamentals of Programming**, Free University of Bozen-Bolzano (2019–2020, 2nd semester): Course responsible and lecturer for Python programming (Bachelor, 1st year, Wood Engineering track, ~10 students, 30 lecture hours, 6 ECTS, English).

Research and scholarships

Summary of current research and scholarship

- 2024 – 2025 Predictive modeling using administrative healthcare records.
- 2023 – 2024 Wearable sensor data analysis for detecting stress phases.
- 2019 – 2023 Sensor data analysis in sport climbing; models for activity recognition, route difficulty prediction, performance assessment, and personalized route recommendation.

Summary of past research and scholarship

- 2017 – 2019 Contributions to EU Horizon 2020 projects (City4Age, PULSE), focused on behavioral data analytics, public health monitoring, and predictive modeling for cognitive/frailty risks.
- 2013 – 2017 PhD research into programming models for parallel and distributed computing (X10, tuple spaces).

Date granted	Award Holder(s)	Funding Body	Title	Amount received
2013 – 2016	Marina Andric	IMT School for Advanced Study Lucca	Full 3-year PhD scholarship including tuition and stipend	€1,000 monthly stipend, full tuition waiver, and campus accommodation provided

Peer-reviewed journal publications

Publications

J4. *Andrić, M., Dagliati, A., Dragoni, M., & Ricci, F. (2025). Healthcare utilization data from Piedmont, Italy: An administrative dataset of care episodes (2019–2024). Data in Brief, 63, 112223. DOI: <https://doi.org/10.1016/j.dib.2025.112223>*

J3. *Milovanović M. R., Andrić M., Živković J. M. (2025). Machine Learning Clustering of Water-Water Interactions in the Cambridge Structural Database. ChemPlusChem e202400764. DOI: <https://doi.org/10.1002/cplu.202400764>*

J2. *Andrić, M., Ricci, F., & Zini, F. (2022).* Sensor-based activity recognition and performance assessment in climbing: A review. *IEEE Access*, 10, 108583–108603.

DOI: <https://doi.org/10.1109/ACCESS.2022.3213683>

J1. Almeida, A., Mulero, R., Rametta, P., Urošević, V., *Andrić, M.*, & Patrono, L. (2019). A critical analysis of an IoT-aware AAL system for elderly monitoring. *Future Generation Computer Systems*, 97, 598–619.

DOI: <https://doi.org/10.1016/j.future.2019.03.019>

Conference publications

C8. *Andrić, M., Dragoni, M., & Ricci, F. (2024).* Anticipating Stress: Harnessing Biomarker Signals from a Wrist-Worn Device for Early Prediction. In *International Conference on Artificial Intelligence in Medicine* (pp. 397–408). Springer Nature.

DOI: https://doi.org/10.1007/978-3-031-66538-7_39

C7. Ivanova, I., *Andrić, M.*, & Ricci, F. (2022). Content-based recommendations for crags and climbing routes. In *Information and Communication Technologies in Tourism 2022: Proceedings of the ENTER 2022 eTourism Conference*, January 11–14, 2022 (pp. 369–381). Springer International Publishing.

DOI: https://doi.org/10.1007/978-3-030-94110-7_29

C6. *Andrić, M., Ivanova, I., & Ricci, F. (2021).* Climbing route difficulty grade prediction and explanation. In *IEEE/WIC/ACM International Conference on Web Intelligence and Intelligent Agent Technology* (pp. 285–292).

DOI: <https://doi.org/10.1145/3486622.3493932>

W4. *Andrić, M., & Dragoni, M. (2025).* Machine Learning and Statistical Insights into Hospital Stay Durations: The Italian Healthcare Administrative Data Case. In *Proceedings of the International Joint Workshop on Artificial Intelligence for Healthcare (HC@AIxIA) & HYDRA 2025* (co-located with ECAI 2025), Bologna, Italy, 25–26 October 2025. Springer CCIS (to appear).

W3. Ivanova, I., *Andrić, M.*, & Ricci, F. (2021). Knowledge-based Recommendations for Climbers. 3rd Edition of Knowledge-aware and Conversational Recommender Systems (KaRS).

DOI: <http://ceur-ws.org/Vol-2960/paper6.pdf>

W2. Ivanova, I., *Andrić, M.*, Janes, A., Ricci, F., & Zini, F. (2020). Climbing activity recognition and measurement with sensor data analysis. In *Companion Publication of the 2020 International Conference on Multimodal Interaction* (pp. 245–249).

DOI: <https://doi.org/10.1145/3395035.3425303>

W1. Ivanova, I., *Andrić, M.*, Moaveninejad, S., Janes, A., & Ricci, F. (2020). Video and sensor-based rope pulling detection in sport climbing. In *Proceedings of the 3rd International Workshop on Multimedia Content Analysis in Sports* (pp. 53–60).

DOI: <https://doi.org/10.1145/3422844.3423058>

C5. Urošević, V., *Andrić, M.*, Vukićević, M., & Tatsiopoulou, C. (2018). A highly configurable flexible analytic model for MCI/frailty risk detection in age-friendly cities. *Proceedings of the 26th International Conference on Software, Telecommunications and Computer Networks (SoftCOM)*, 1–6. IEEE.

DOI: <https://doi.org/10.23919/SOFTCOM.2018.8555810>

C4. Urošević, V., *Andrić, M.*, & Pagán, J. A. (2020). Baseline Modelling and Composite Representation of Unobtrusively Sensed Behaviour Changes Related to Urban Physical Well-Being. In *ICOST 2020: The Impact of Digital Technologies on Public Health in Developed and Developing Countries* (pp. 155–167). Springer.

DOI: https://doi.org/10.1007/978-3-030-51517-1_13

C3. Almeida, A., Mulero, R., Patrono, L., Rametta, P., Urošević, V., *Andrić, M.*, et al. (2018). A performance analysis of an IoT-aware elderly monitoring system. In 3rd International Conference on Smart and Sustainable Technologies (SpliTech) (pp. 1–7). IEEE.

C2. *Andrić, M.*, De Nicola, R., & Lluch Lafuente, A. (2015). Replica-based high-performance tuple space computing. In International Conference on Coordination Languages and Models (pp. 3–18). Springer International Publishing Cham.

DOI: https://doi.org/10.1007/978-3-319-19282-3_1

C1. Abd Alrahman, Y., *Andrić, M.*, Beggiato, A., & Lluch Lafuente, A. (2014). Can we efficiently check concurrent programs under relaxed memory models in Maude? In Rewriting Logic and Its Applications: 10th International Workshop, WRLA 2014 (pp. 21–41). Springer.

DOI: https://doi.org/10.1007/978-3-319-12904-4_2

Book chapters

B1. *Andrić, M.*, De Nicola, R., & Lluch Lafuente, A. (2015). Replicating data for better performances in X10. In D. Sangiorgi, I. Lanese (Eds.), Semantics, Logics, and Calculi: Essays Dedicated to Hanne Riis Nielson and Flemming Nielson (pp. 236–251). Springer International Publishing.

Other publications

O1. Abril-Jiménez, P., Almeida, A., *Andrić, M.*, et al. (2019). City4Age Behaviour Dataset. Zenodo.

[10.5281/zenodo.2602652](https://zenodo.org/record/2602652)

PhD Thesis

Andrić, M. (2017). Programming Abstractions for Data Sharing in Distributed Spaces (Doctoral dissertation). IMT School for Advanced Studies Lucca.

<http://e-theses.imtlucca.it/220/>

Further data

Presentations at scientific conferences over past 5 years:

- Machine Learning and Statistical Insights into Hospital Stay Durations: The Italian Healthcare Administrative Data Case. @ International Joint Workshop on Artificial Intelligence for Healthcare (HC@AixIA) & HYDRA 2025, Bologna, October 2025.
- Anticipating Stress: Harnessing Biomarker Signals from a Wrist-Worn Device for Early Prediction @ Artificial Intelligence in Medicine (AIME 2024), July 2024.
- Predicting the Perceived Difficulty Grades of Climbing Routes @ Industry track at ECML PKDD 2021, September 2021.
- Hands-on tutorial: The SALSA project @ Software Developer's Thursday at NOI Techpark Bolzano, May 2021.
- IoT in Climbing: Non-invasive Activity Tracking @ SFSc'on'20 at NOI Techpark Bolzano, November 2020.
- IoT – Hands-on Tutorial @ Arbeitskonferenz für Softwarequalität, Test & Innovation" (ASQT), October 2020.

Service as a PC Member:

- Int'l IEEE/WIC Conference on Web Intelligence and Intelligent Agent Technology (WI-IAT 2024)
- Int'l IEEE/WIC Conference on Web Intelligence and Intelligent Agent Technology (WI-IAT 2023)
- Int'l IFITT eTourism Conference (ENTER 2023)

Reviewing activity:

- Journal of Ambient Intelligence and Smart Environments (JAISE 2023-present)
- ACM Transactions on Recommender Systems (TORS 2025)

Student supervision:

- Ongoing supervision of a BSc thesis (11/2025 – 02/2026) at the University of Trento, as part of an internship at Bruno Kessler Foundation (FBK)
- Supervised one PhD student during their initial research period (2019–2022), Free University of Bozen-Bolzano.
- Provided informal mentoring to two PhD students working under the supervision of Prof. Francesco Ricci (2019–2023), Free University of Bozen-Bolzano.

Relevant Online Courses Completed

- Statistical Inference – Johns Hopkins University (Coursera)
- Regression Models – Johns Hopkins University (Coursera)

Language competence

English: C1, released in 2022 by the Language Center of the Free University of Bozen-Bolzano
Italian: CERF B1
German: CERF A2
Serbian: mother tongue

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