

Andrea D'Angelo
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Short Bio

Andrea D'Angelo has over 4 years of Research experience, completing a Research Scholarship and a Ph.D. in Computer Science at the University of L'Aquila. His research focuses on Trustworthy Artificial Intelligence, Machine Unlearning, and the development of reliable Machine Learning systems. During his Ph.D., he spent six months as a visiting student at Aarhus University. He has authored more than 15 papers published in leading venues (including IJCAI, CIKM, JSS, and IP&M), organized an international workshop and delivered a tutorial at ECML-PKDD 2025, contributed to major conferences by serving as Proceedings Chair for CIKM 2024 and WSDM 2026, and delivered invited talks at several leading institutions, including the Technical University of Munich (TUM). He also assisted in teaching multiple courses, supervised four master's theses, and served on the program committees of major conferences.



Education

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| 2022–25* | Ph.D. , Computer Science, University of L'Aquila.
Thesis: " <i>Towards Trustworthy AI with Machine Unlearning</i> " |
| 2020-22 | M.Sc. , Computer Science (LM-18), University of L'Aquila, 110/110 cum Laude, 22/10/2022.
Thesis: " <i>Clouds of vectors for density-based Information Retrieval</i> ". |
| 2016-19 | B.Sc. Computer Science (L-31), University of L'Aquila, 110/110 cum Laude, 21/10/2021.
Thesis: " <i>Application of standard compilation techniques to non-linear languages</i> ". |

Summer Schools

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| 2023 | ACDL Advanced Course on Data Science & Machine Learning 2023 Summer School. |
| 2023 | SoBigData Lipari Summer School 2023. |

Research Experience

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| 2022-25 | Ph.D. (XXXVIII cycle) Student, University of L'Aquila, (Advisors: Prof. Giovanni Stilo, Prof. Antiniscia Di Marco). |
| 2025 | 6-month Visiting Ph.D. Student, Datalogi, Aarhus University, (Advisor: Prof. Davide Mottin). Worked on Graph Unlearning and Differential Privacy. |

*Expected.

2021-22 **9 months Research Scholarship**, Data Analysis and Management for the "Territori Aperti" project, funded by CIGL CISL UIL, University of L'Aquila.
Worked on new techniques for LLM-based Dense Retrieval.

Awards

2025 Awarded **ERASMUS** Traineeship Grant for European mobility.
2024 Awarded CIKM (ACM International Conference on Information and Knowledge Management) 2024 **Distinguished Reviewer Award**.
2024 Awarded EUGAIN **Virtual Mobility Grant**, EUGAIN COST Action E-COST-GRANT-CA19122-04419a60.
2024 Awarded **Mobility Grant** from KDD 2024 (ACM SIGKDD Conference on Knowledge Discovery and Data Mining).
2024 Awarded **Best Short Paper** Award at ICPE 2024 (International Conference on Performance Engineering).
2022 Awarded publicly funded Ph.D. Scholarship at University of L'Aquila.

Teaching

University of L'Aquila

2024 Co-Creator of the MOC course on "Reinforcement Learning" of the SoBigData Academy ².
2023, 2024 Assistance During Lectures, Deep Neural Networks (Computer Science Msc, LM-18), 8 hours.
2023, 2024 Assistance During Lectures, Artificial Intelligence (Computer Science Msc, LM-18), 5 hours.

Supervision

Scholars

2025 Francesca Ciccarelli, University of L'Aquila, Ph.D. Student,
 on the topics of Machine Unlearning applied to LLMs.
2025 Manuel Antonio Vilas Valiente, University of L'Aquila, Visiting Scholar,
 on the topics of Machine Unlearning applied to Time Series.
2024, 2025 Tutor for Pinkamp, a STEM Outreach program.

Theses

²<https://sobigdata.unipi.it/course/view.php?id=17>

2025	Fabio D'Andreamatteo, University of L'Aquila, Data Science Master's Degree, " <i>HybridKAN: Leveraging Multi-Sized Sub-MLPs for Enhanced Performances</i> ".
2025	Samuele Ramassone, University of L'Aquila, Computer Science Master's Degree, " <i>Beyond the Systematic Evaluation of Large Language Models: From Theory to Practical Analysis of Results</i> ".
2025	Gabriele Tagliente, University of L'Aquila, Computer Science Master's Degree, " <i>From ERASURE to Evaluation of Machine Unlearning Techniques</i> ".
2025	Matteo Iezzi, University of L'Aquila, Data Science Master's Degree, " <i>Recent Advances in Chain-of-Thought Prompting: Current Trends and Automation Approaches</i> ".

Service

Organization

2025	Proceedings Chair of WSDM (ACM International Conference on Web Search and Data Mining) 2026.
2025	Co-organizer of Workshop on Innovations, Privacy-preservation, and Evaluations of machine Unlearning Techniques (WIPE-OUT 2025), ECML-PKDD (European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases) 2025, Porto.
2025	Program Committee Chair of Workshop on Innovations, Privacy-preservation, and Evaluations of machine Unlearning Techniques (WIPE-OUT 2025), ECML-PKDD (European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases) 2025, Porto.
2025	Co-organizer of Tutorial: Unraveling Graph Counterfactual Explainability: from Theoretical Foundations to Technical Mastery, ECML-PKDD (European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases) 2025, Porto.
2024	Proceedings Chair of CIKM (ACM International Conference on Information and Knowledge Management) 2024.
2024	Co-organizer of "Territori Aperti: dai risultati alle sfide future" event.

Member of the Program Committee

2025	ACM Web Conference (formerly known as the International World Wide Web Conference)
2025	KDD (ACM SIGKDD Conference on Knowledge Discovery and Data Mining).
2024, 2025	CIKM (ACM International Conference on Information and Knowledge Management).
2025	ECML-PKDD (European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases).
2025	ICPE Data Challenge (International Conference on Performance Engineering).
2024	LL4MSE Workshop @ STAF 2025 (Software Technologies: Applications and Foundations).
2024	DELTA Workshop @ KDD 2024 (ACM SIGKDD Conference on Knowledge Discovery and Data Mining).

- 2024 MIDAS Workshop @ ECML-PKDD 2024 (European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases).
- 2023 BIAS Workshop @ ECIR 2023 (European Conference on Information Retrieval).

Presentations

Talks

- T1. **D'Angelo, Andrea.** *Forgetting Right: Towards Reproducible Benchmarks in Machine Unlearning with ERASURE* WIPEOUT Workshop @ ECML PKDD 2025 (European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases), Porto. 2025.
- T2. **D'Angelo, Andrea.** *HybridKAN: Leveraging Multi-Sized Sub-MLPs for Enhanced Performance* ITADATA (Italian Conference on Big Data and Data Science) 2025, Turin. 2025.
- T3. **D'Angelo, Andrea.** *A Novel Relevance Score for Unsupervised Retrieval with Large Language Models* KDD 2024 (ACM SIGKDD Conference on Knowledge Discovery and Data Mining), Barcelona. 2024.
- T4. **D'Angelo, Andrea.** *Echocardiographic Epicardial Adipose Tissue Quantification: Challenges and Insights*; Percom (International Conference on Pervasive Computing and Communications) 2024, Biarritz. 2024.
- T5. **D'Angelo, Andrea.** *Machine Unlearning: Safeguarding Privacy and Security in AI Models* Technical University of Munich (**Invited Talk**). July 2024.
- T6. **D'Angelo, Andrea.** *Privacy Implications in the Training and Use of Large Language Models* Territori Aperti, Napoli. 2024.
- T7. **D'Angelo, Andrea.** *Data-Driven Analysis of Gender Fairness in the Software Engineering Academic Landscape* ECSA 2023 (European Conference on Software Architecture), Istanbul. 2023.
- T8. **D'Angelo, Andrea.** *Uncovering Gender Bias in Academia* AIGAP 2023 (Algorithmic Biases in Artificial Intelligence from Interdisciplinary Perspectives), L'Aquila. 2023.

Posters

- P1. **D'Angelo, Andrea.** *A novel Relevance Score for Unsupervised Retrieval with Large Language Models* KDD (ACM SIGKDD Conference on Knowledge Discovery and Data Mining) 2024, Barcelona, Spain.
- P2. Ciccarelli, F., **D'Angelo, Andrea** & Stilo, G. *Towards a Novel Visual Evaluation of Algorithmic Bias: Insights on the Italian Academic System* KDD (ACM SIGKDD Conference on Knowledge Discovery and Data Mining), 2024.

Publications

G Google Scholar: <https://scholar.google.com/citations?user=9WIwwAAAAJ>

Book Chapters

- B1. Takaoka, A. J. W., Alboaie, L., Cutrupi, C. M., **Andrea D'Angelo**, Marco, A. D. & Hillston, J. *Best Practices and Lessons from Academia-Industry Collaboration Initiatives* Mar. 2025.
- B2. **Andrea D'Angelo** & Stilo, G. *Clouds of vectors for density-based Information Retrieval* Oct. 2022. <https://hdl.handle.net/20.500.12319/8665>.
- B3. **Andrea D'Angelo** Sergio Orefice, G. D. P. *Application of standard compilation techniques to non-linear languages* 2019. <https://hdl.handle.net/20.500.12319/1081>.

Journal Articles

Reported journal ranks are from Scimago Journal rank (SJR).

- J1. D'Angelo, A., Gullo, F. & Stilo, G. The Forget-Set Identification Problem. *Machine Learning [Q1]* 114. <https://doi.org/10.1007/s10994-025-06897-9> (2025).
- J2. **Andrea D'Angelo**, d'Aloisio, G., Marzi, F., Di Marco, A. & Stilo, G. Uncovering gender gap in academia: A comprehensive analysis within the software engineering community. *Journal of Systems and Software [Q1]* 217, 112162. ISSN: 0164-1212. <https://www.sciencedirect.com/science/article/pii/S0164121224002073> (2024).
- J3. Bianchi, A., Zelli, V., **D'Angelo, Andrea**, Di Matteo, A., Scoccia, G., Cannita, K., Dimas, A. S., Glentis, S., Zazzeroni, F., Alesse, E., Di Marco, A. & Tessitore, A. A method to comprehensively identify germline SNVs, INDELs and CNVs from whole exome sequencing data of BRCA1/2 negative breast cancer patients. *NAR Genomics and Bioinformatics [Q1]* 6, lqae033. ISSN: 2631-9268. eprint: <https://academic.oup.com/nargab/article-pdf/6/2/lqae033/57258946/lqae033.pdf>. <https://doi.org/10.1093/nargab/lqae033> (Apr. 2024).
- J4. d'Aloisio, G., **Andrea D'Angelo**, Di Marco, A. & Stilo, G. Debiasser for Multiple Variables to enhance fairness in classification tasks. *[Information Processing & Management] [Q1]* 60, 103226. ISSN: 0306-4573 (2023).
- J5. Della Penna, G., Orefice, S. & **D'Angelo, A.** Exploiting spatial relations for grammar-based specification of multidimensional languages. *Knowledge and Information Systems [Q1]* 65, 3995–4020 (2023).

Peer-reviewed

Conference Papers. Reported conference ranks are from CORE.

- C1. **D'Angelo, A.**, Savelli, C., Tagliente, G., Giobergia, F., Baralis, E. & Stilo, G. *How to Make Reproducible Research in Machine Unlearning with ERASURE* in *Proceedings of the Thirty-Fourth International Joint Conference on Artificial Intelligence, IJCAI-25 [A*]* Demo Track (International Joint Conferences on Artificial Intelligence Organization, Aug. 2025), 11025–11029. <https://doi.org/10.24963/ijcai.2025/1255>.
- C2. **D'Angelo, Andrea**, Savelli, C., Tagliente, G., Giobergia, F., Baralis, E. & Stilo, G. *ERASURE: a Modular and Extensible Framework for Machine Unlearning* in *Proceedings of the 34th ACM International Conference on Information and Knowledge Management (CIKM 2025 [A])* (Association for Computing Machinery, Seoul, Korea, 2025).

- C3. Di Sipio, C., **D'Angelo, Andrea**, Rubei, R. & Politowski, C. *On the Need for Reproducibility Guidelines for Open-Source Games: A itch.io Case Study* in *2025 IEEE Conference on Games (CoG)* [C] (2025), 1–8.
- C4. d'Aloisio, G., **D'Angelo, Andrea**, Marzi, F., Di Marco, D., Stilo, G. & Di Marco, A. *Data-Driven Analysis of Gender Fairness in the Software Engineering Academic Landscape in Software Architecture. ECSA 2023 Tracks, Workshops, and Doctoral Symposium* [A] (eds Tekinerdoğan, B., Spalazzese, R., Sözer, H., Bonfanti, S. & Weyns, D.) (Springer Nature Switzerland, Cham, 2024), 89–103. ISBN: 978-3-031-66326-0.
- C5. D'Andreammatteo, F., **D'Angelo, Andrea** & Stilo, G. *HybridKAN: leveraging Multi-Sized Sub-MLPs for Enhanced Performances* in *ITADATA (Italian Conference on Big Data and Data Science) 2025* (Torino, Italy, 2024).
- C6. **D'Angelo, Andrea** & d'Aloisio, G. *Grammar-Based Anomaly Detection of Microservice Systems Execution Traces in Companion of the 15th ACM/SPEC International Conference on Performance Engineering* [B] (Association for Computing Machinery, London, United Kingdom, 2024), 77–81. ISBN: 9798400704451. <https://doi.org/10.1145/3629527.3651844>. Best Short Paper Award (ICPE 2024).
- C7. **D'Angelo, Andrea**, Di Sipio, C., Politowski, C. & Rubei, R. *PlayMyData: a curated dataset of multi-platform video games* in *Proceedings of the 21st International Conference on Mining Software Repositories* [A] (Association for Computing Machinery, Lisbon, Portugal, 2024), 525–529. ISBN: 9798400705878. <https://doi.org/10.1145/3643991.3644869>.
- C8. Bianchi, A., d'Aloisio, G., **Andrea D'Angelo**, Marco, A. D., Matteo, A. D., Leone, J., Scoccia, G., Stilo, G. & Traini, L. *DIORAMA: Digital twIn fOR sustAinable territorial MAnagement* in *Proceedings of itaDATA (Italian Conference on Big Data and Data Science)* (Sept. 2022), 144–155.
- C9. d'Aloisio, G., Stilo, G., Di Marco, A. & **D'Angelo, Andrea**. *Enhancing Fairness in Classification Tasks with Multiple Variables: A Data- and Model-Agnostic Approach* in *Advances in Bias and Fairness in Information Retrieval* (eds Boratto, L., Faralli, S., Marras, M. & Stilo, G.) (Springer International Publishing, Cham, 2022), 117–129. ISBN: 978-3-031-09316-6.

Last updated: October 25, 2025