

Bardh Prenkaj

Curriculum Vitae

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Part I – Education

| Type | Date | Institution | Notes (Degree, Experience, ...) |
|-------------------|---|------------------------------------|---|
| Ph.D. | 11/2018 – 10/2021 (official graduation date: 25/02/2022) | Sapienza University of Rome, Italy | PhD in Computer Science, defending the thesis “ <i>Latent Deep Sequential Learning of Behavioural Sequences</i> ”, advisors prof. Velardi, prof. Distanto; co-advisors: prof. Stilo, prof. Faralli. |
| Master’s degree | 01/2017 – 10/2018 (official graduation date: 24/10/2018) | Sapienza University of Rome, Italy | Laurea Magistrale in Computer Science. 110/110 <i>cum laude</i> |
| Bachelor’s degree | 09/2013 – 12/2016 (official graduation date: 15/12/2016) | Sapienza University of Rome, Italy | Laurea Triennale in Informatica. 110/110 |

Part II –Appointments

II.A – Research appointments

| Start | End | Institution | Position | Activity description |
|------------|------------|--------------------------------|--|--|
| 15/04/2024 | 13/03/2026 | Technical University of Munich | Postdoc Researcher | I am currently working on fairness and trustworthiness of generative models as part of the Chair of Responsible Data Science . I currently co-advise 6 PhD students |
| 01/10/2022 | 31/01/2026 | Sapienza University of Rome | Postdoc Researcher (Art. 22 L. 240/2010) | Competition procedure: AR-B 03/2022 (until 31/01/2025) + AR-A 08/2024 (until 31/01/2026) I worked on anomaly detection in various tasks such as video understanding (in collaboration with PINlab), and behavioral and health time series (in collaboration with prof. Velardi). I also worked in counterfactual explainability in graph classification tasks (in collaboration with AIIM) where I mentored Mario Alfonso Prado-Romero (Gran Sasso Science Institute) and highly contributed to the technological transfer of GRETEL . |
| 01/12/2021 | 30/09/2022 | Sapienza University of Rome | Senior Research Fellow | Competition procedure: BS-S 6/2021 Coordinated research and implementation of innovative deep learning models to predict events in patient behavioral time series |
| 01/07/2017 | 31/10/2018 | Sapienza University of Rome | Student Research Assistant | Competition procedure: BS-J 7/2017 I Extended the UCrawler framework to cope with crawling and scraping the content of research articles and citation graphs on DBLP and Semantic Scholar. During this period, I also completed my master's thesis. |

II.B – Visiting researcher

| Period | Institution | Position |
|-------------------------|--|--|
| 01/06/2023 – 01/09/2023 | Technical University of Munich, Germany | Visiting researcher, hosted by prof. Gjergji Kasneci, working on Graph Counterfactual Explainability (paper published at KDD'24 Main Conference Track) |
| 01/04/2021 – 30/06/2021 | George Mason University, College of Engineering and Computing, Fairfax (VA), USA | Visiting Ph.D. student, hosted by prof. Carlotta Domeniconi, working on Anomaly Detection (paper published at PAKDD'20 Main Conference Track) |

Part III – Teaching experience

III.A - Courses

| Academic Years | Institution | Course |
|------------------|--|--|
| 2024/25 | Heimerer College, Kosovo | AI in Healthcare (5 ECTS), M.Sc. in Digital Healthcare, Faculty of Health Sciences and Nursing |
| 2024/25 | Heimerer College, Kosovo | Perspectives in Assistive Technology (10 ECTS), M.Sc. in Digital Healthcare, Faculty of Health Sciences and Nursing |
| 2024/25 | Technical University of Munich, Germany | AI in the Metaverse - Simulating Agents with LLMs (4 SWS), <i>course open for students in M.Sc. in Computer Science & M.Sc. in Computer Engineering</i> |
| 2024/25 | Heimerer College, Kosovo | AI in Healthcare (5 ECTS), M.Sc. in Digital Healthcare, Faculty of Health Sciences and Nursing |
| 2024/25 | Heimerer College, Kosovo | Sensing and Diagnostic Technologies and Patient Monitoring (10 ECTS), M.Sc. in Digital Healthcare, Faculty of Health Sciences and Nursing |
| 2023/24 | Heimerer College, Kosovo | Bioinformatics (6 ECTS), M.Sc. in Digital Healthcare, Faculty of Health Sciences and Nursing |
| 2022/23, 2023/24 | Heimerer College, Kosovo | Bioinformatics (6 ECTS), M.Sc. in Medical Laboratory Sciences, Faculty of Health Sciences and Nursing |
| 2023/24 | Fondazione ITS – Istituto Tecnico Superiore Information and Communications Technology Academy, Italy | Foundations of Programming in Python (2x25h) Project: "UNLIMITED TECHNOLOGICAL KNOWLEDGE" – Direction PROFESSIONAL CLOUD DEVELOPER and FULL STACK DEVELOPER at S.M.I. Technologies and Consulting srl in Via della Sierra Nevada, 60, 00144, Rome, CUP: G84D23004110006 |
| 2023/24 | Fondazione ITS – Istituto Tecnico Superiore Information and Communications Technology Academy, Italy | Operative Systems and Networks (2x40h) Project: "UNLIMITED TECHNOLOGICAL KNOWLEDGE" – Direction PROFESSIONAL CLOUD DEVELOPER and FULL STACK DEVELOPER at S.M.I. Technologies and Consulting srl in Via della Sierra Nevada, 60, 00144, Rome, CUP: G84D23004110006 |
| 2022/23 | Luiss Guido Carli, Italy | Algorithms (8 ECTS, Laboratory classes), B.Sc. in Management and Computer Science, Department of Business and Management. Main prof: Irene Finocchi |
| 2022/23, 2023/24 | Sapienza University of Rome, Italy | Machine Learning (6 ECTS, Laboratory classes), M.Sc. in Computer Science, Faculty of Information Engineering, Computer Science, and Statistics. Main prof: Paola Velardi |
| 2018/19, 2019/20 | Sapienza University of Rome, Italy | Web and Social Information Extraction (6 ECTS, Laboratory classes in co-teaching with Giovanni Stilo), M.Sc. in Computer Science, Faculty of Information Engineering, Computer Science, and Statistics. Main prof: Paola Velardi |
| 2018/19 | Sapienza University of Rome, Italy | Social and Behavioural Networks (6 ECTS, Laboratory classes), M.Sc. in Data Science, Faculty of Information Engineering, Computer Science, and Statistics. Main prof: Giovanni Stilo |

III.B – Invited Talks

| Year | Institution | Lecture |
|------|--|--|
| 2024 | Temporal Graph Learning (TGL) Reading Group, University of Mannheim (Germany) + Mila (Canada) | Unifying Evolution, Explanation, and Discernment: A Generative Approach for Dynamic Graph Counterfactuals |
| 2024 | Microsoft Israel | Robust Stochastic Graph Generator for Counterfactual Explanations |
| 2023 | University of L'Aquila, Department of Information Engineering, Computer Science and Mathematics | Hands-on: Building Convolutional Neural Networks and Optimizing them to Recognize Handwritten Digits <i>for the students of the course [DT0683] Deep Neural Networks (M.Sc. level)</i> |
| 2023 | Technical University of Munich, PhD Program in Computer Science / Chair of Responsible Data Science | A Bridge between Anomaly Detection and Graph Counterfactual Explainability in Dynamic Data |
| 2022 | Martin-Luther University of Halle-Wittenberg, PhD Program in Digital Healthcare / Universitätsklinikum Halle (Saale) | Explaining Anomalies in Patient Daily Behavior Profiles |

III.C – Tutorials

| Date | Venue | Title |
|------------|---|---|
| 21/02/2024 | 38th Annual AAAI Conference on Artificial Intelligence (AAAI'24) | Graphs Counterfactual Explainability: A Comprehensive Landscape. Format: Quarter-day (1.5h) Tutorial |
| 21/02/2024 | 38th Annual AAAI Conference on Artificial Intelligence (AAAI'24) | Digging into the Landscape of Graphs Counterfactual Explainability. Format: Quarter-day (1.5h) Lab Tutorial |
| 19/10/2020 | 19th ACM International Conference On Information and Knowledge Management (CIKM'20) | Challenges and Solutions to the Student Dropout Prediction Problem in Online Courses. Format: Half-day (4h) Tutorial |

IV.D – PhD Students

| Graduation year | Role | Student and Thesis title/topic | PhD Program / Institution |
|-----------------|--------|---|--|
| 2029 | Mentor | <i>Efstathios Zaradoukas</i> Topic: Machine Unlearning and Robustness Thesis: TBD | Computer Science, Technical University of Munich |
| 2029 | Mentor | <i>Yuxiao Li</i> Topic: Synthetic Data Generation Thesis: TBD | Computer Science, Technical University of Munich |

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|------|--------|--|---|
| 2029 | Mentor | <i>Zheyu Zhang</i> Topic: Synthetic Data Generation Thesis: TBD | Computer Science, Technical University of Munich |
| 2027 | Mentor | <i>Davide Gabrielli</i> Topic: Foundational Models for Time Series Thesis: TBD | Computer Science, Sapienza University of Rome |
| 2026 | Mentor | <i>Alina Fastowski</i> Topic: Robustness and Factuality of LLMs Thesis: TBD | Computer Science, Technical University of Munich |
| 2026 | Mentor | <i>Shuo Yang</i> Topic: Bias and Fairness in LLMs Thesis: TBD | Computer Science, Technical University of Munich |
| 2025 | Mentor | <i>Mario Alfonso Prado-Romero</i> , Topic: Graph Counterfactual Explainability Thesis: “ <i>Counterfactual Explainability in Graphs: Foundations, Generative Methods, and Ensemble Techniques</i> ” Grade: <i>summa cum laude</i> | Computer Science, Gran Sasso Science Institute |

IV.E – Advisor of Master and Bachelor final thesis

| Graduation year | Role | Student and thesis title/topic | Program / Institution |
|------------------------|-------------|---|--|
| 2024 | Co-Advisor | <i>Leonardo Berti</i> , Deep Learning for Limit Order Book Market: A Comprehensive Perspective Grade: <i>110/110 cum laude</i> | M.Sc. in Computer Science, Sapienza University of Rome |
| 2022 | Mentor | <i>Leonardo Berti</i> , Deep Learning for Trend Prediction in Financial Time Series Grade: <i>110/110 cum laude</i> | B.Sc. in Computer Science, Sapienza University of Rome |
| 2021 | Co-Advisor | <i>Dario Aragona</i> , Semi-supervised Anomaly Detection on Elderly Behaviour Time Series Grade: <i>110/110 cum laude</i> | M.Sc. in Computer Science, Sapienza University of Rome |
| 2021 | Mentor | <i>Luca Podo</i> , Machine Learning applied to the Visual Analytics of health conditions in older people Grade: <i>110/110 cum laude</i> | M.Sc. in Computer Science, Sapienza University of Rome |
| 2018 | Mentor | <i>Gianmarco Forcella</i> , DataEX: A Distributed Micro Service Architecture to support Data Analytics in the eLearning sector | M.Sc. in Computer Science, Sapienza University of Rome |
| 2018 | Co-Advisor | <i>Emanuele Alessi</i> , Student Dropout Prediction through Attention Networks with an application to Unitelma Sapienza | M.Sc. in Computer Science, Sapienza University of Rome |

Part V - Society memberships, Awards and Honors

| Year | Type | Title |
|-------------|-------------|--------------|
|-------------|-------------|--------------|

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|------------|------------|---|
| 2025 | Award | Outstanding Reviewer for the ACM SIGKDD & Annual KDD Conference 2025 February Cycle. This is a prize that is given to only 10% of all reviewers. |
| 2025 | Award | Friedrich Schiedel Fellowship (Batch #2, ID: FSF204) for the project “Game-Theoretic Counterfactual Explainability for Ethical and Transparent AI in Society”. Lump Sum: € 20,000.00 |
| Since 2024 | Membership | Member of the Association for Computing Machinery’s Special Interest Group on Knowledge Discovery and Data Mining (SIGKDD) |
| Since 2023 | Membership | Regular Member of the Association for the Advancement of Artificial Intelligence (AAAI) |
| 2023 | Honor | Subject Expert: (“Cultore della Materia” Art. 42 del R.D. 04/06/1938, n.1269). Award for highly-skilled researcher and technician on “Machine Learning” course in M.Sc. Computer Science, Department of Information Engineering, Computer Science, and Statistics at the Sapienza University of Rome |
| 2023 | Honor | Subject Expert: (“Cultore della Materia” Art. 42 del R.D. 04/06/1938, n.1269). Award for highly-skilled researcher and technician on “Deep Neural Networks” course in M.Sc. Computer Science, Department of Information Engineering, Computer Science, and Mathematics at University of L’Aquila |
| 2023 | Award | Highlighted Reviewer at the NeurIPS XAI in Action (XAIA 2023) Workshop. |
| 2020 | Award | Winner of the Avvio alla Ricerca 2020 – Tipo I, prot. Num: AR120172A8B35EEA on the research project “Personalized e-Learning Solutions to Improve the Efficacy of Learning Outcomes in Computer Science e-Courses”. Lump Sum: € 1,000.00 |
| 2017 | Award | Winner of the Premio di Laurea distributed from LazioDiSU for completing the B.Sc. Computer Science, Ente per il Diritto agli Studi Universitari nel Lazio. num: 899, grade: 110/110. Lump Sum: € 2,599.18 |
| 2013-2018 | Award | Winner of the LazioDiSU Study Scholarship for B.Sc. (3 years) and M.Sc. (2 years). Yearly sum: € 5,118.36 |

Part VI - Funding Information and research projects

- In the last five years (since 2018) I have been PI of 3 research project for a total funding of about € 140K
- Since 2018 I participated in 5 projects (including the 2 mentioned above) as researcher (component)

VI.A – As Principal Investigator

| Years | Title | Program (and Partners) | Role | Grant Value (personal share) |
|-----------|--|---|---|------------------------------|
| 2025-2026 | Game-Theoretic Counterfactual Explainability for Ethical and Transparent AI in Society | Friedrich Schiedel Fellowship (sole participant) | PI | € 20K |
| 2023-2025 | @HOME: AI and IoT Solutions for Home Care Monitoring of the Elderly | Riposizionamento Competitivo RSI Programma Regionale – FESR Lazio 2021-2027. CUP: F89J23001050007 | Co-PI with prof. Paola Velardi (Sapienza) | € 119.5K |

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|-----------|--|--|----|------|
| 2020-2021 | Personalized e-Learning Solutions to improve the Efficacy of Learning Outcomes in Computer Science e-Courses | Avvio alla Ricerca 2020 - Tipo 1, protocol number AR120172A8B35EEA (sole participant) | PI | € 1K |
|-----------|--|--|----|------|

VI.B – As WP leader, Task leader, or Research team member

| Years | Title | Program (and Partners) | Role | Grant Value (Tot. co-financed) |
|--------------|---|---|----------------------|--------------------------------|
| 2022-ongoing | E-DAI: Digital Ecosystem for Integrated Analysis of Heterogeneous Health Data Relating to High-Impact Pathologies: An Innovative Model of Assistance and Research | Piano Operativo Salute (POS) 2014-2020. CUP: B83C22004150001 | Research team member | € 2.38M |
| 2021-2023 | SI4SI: Smart Intervention for Senior Isolation | AAL Programme (AAL Call 2020) https://www.aal-europe.eu/ | Research team member | € 1.75M |
| 2020-2021 | E-Linus | POR FESR Lazio 2014-2020, Avviso Pubblico “Emergenza Coronavirus e oltre | Research team member | € 504K |

Part VII – Research Activities (updated 03/2025)

In what follow are summarized the research contributions provided in my career. Citations in the text refer to “Part X– Selected publications”

| Keywords | Brief Description |
|----------------------|---|
| Explainable AI (XAI) | <p>XAI is vital for improving the transparency and interpretability of AI models, particularly in dynamic environments and graph-based structures. Key contributions in this field include the development of frameworks [WSDM23] and graph counterfactual explainability [KDD24,AAAI24,CSUR23] which aid in understanding and explaining AI decisions.</p> <p>Activities and Collaborations: During my first two years of postdoc (10/2022-06/2024), I collaborated with both national (AIIM of UnivAQ and KDDLab of UniPI) and international (RDS of TUM) research groups in XAI, specifically in graph counterfactual explainability. At RDS, I spent three months (06/2023-09/2023) as a visiting researcher working on dynamic graph explainability. We published [KDD24] as the first generative-based representation learning method for explainability purposes.</p> <p>I also collaborated with AIIM and KDDLab where I monitored a Dr. Mario Alfonso Prado Romero from the Gran Sasso Science Institute in establishing the foundations of graph counterfactual explainability (GCE) [CSUR23]. Mario graduated in march 2025 with <i>summa cum laude</i>. We developed the first unified and modular framework for GCE – namely GRETEL – published as a demo paper [WSDM23,ECML24].</p> |
| Anomaly Detection | Anomaly Detection plays a critical role in identifying outliers in data streams, essential in sectors such as healthcare and cybersecurity [ICCV23]. The |

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|---------------------------------|---|
| | <p>contributions here include unsupervised detection methods based on dynamic clustering and trajectory analysis [CVPR23,AIM23], particularly useful for behavioral drift detection [TKDE23].</p> <p>Activities and Collaborations:</p> <p>In the projects @HOME and E-Linus, we studied how to pinpoint anomalies in the daily routine of patients suffering from neurodegenerative diseases based on multivariate time series constituting of biomarker signals and daily activities. During the E-Linus project we published a technical paper in anomaly detection incorporating uncertainty measures by adopting learning models in hyperspaces [CVPR23], and a more medicine-focused [AIM23,CVPR23], and for @HOME we submitted (December 2024) a journal paper in AIM (we're in the first revision round). We also extended these studies to a more generic drift detection framework – namely DynAmo – that tackles gradual changes in feature distribution and reports long-term anomalies instead of point ones [TKDE23].</p> <p>During my Ph.D. (2018 – 2022), I studied the student dropout phenomenon [CSUR20, FGCS21] with a focus on detecting peculiarities for at-risk students and providing bespoke pathways to recuperate them. This was done in collaboration with prof. Distante at Unitelma Sapienza and the students enrolled therein.</p> |
| Machine Learning for Healthcare | In healthcare, Machine Learning is leveraged to monitor patient behavior, detect anomalies, and predict health outcomes. My work includes developing models for social isolation disorders and behavioral time series analysis, contributing to early detection and intervention [AIM23,TKDE23]. |

Part VIII – Summary of Scientific Achievements (updated 03/2025)

| Product Type | Number | Database | Start | End |
|------------------------|-----------------|----------------------|-------|------|
| Papers [international] | 26 ¹ | Google Scholar | 2017 | 2025 |
| Papers [international] | 26 | Scopus | 2017 | 2025 |
| Papers [international] | 18 | Web of Science (WoS) | 2017 | 2025 |

| | Databases | | |
|--|-----------|----------------|----------------|
| | Scopus | Web of Science | Google Scholar |
| Total Impact Factor | - | 76.5 | - |
| Average Impact Factor (IF divided by the number of journals) | - | 9.563 | - |
| Total Citation | 223 | 139 | 400 |
| Average Citations per Product | 8.58 | 7.72 | 14.81 |
| Hirsch (H) index | 7 | 7 | 9 |
| Normalized H index (H index divided by academic seniority) | 0.875 | 0.875 | 1.125 |
| Field-Weighted Citation Impact (FWCI) | 1.512 | - | - |

Part IX – Organization of conferences, keynotes, PC, peer review, paper presentation, conference participation

| Type | Description |
|------|-------------|
|------|-------------|

¹ Without counting the workshop DELTA, the supplementary material for the ECCV'24 paper, and the arXiv.

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| Conference Organization | <p>[SynDAiTE25] co-Chair of the Workshop “SynDAiTE: Synthetic Data for AI Trustworthiness and Evolution”. The workshop is held in conjunction with the European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML-PKDD 2025), September 15, 2025 - Porto, Portugal. https://aiimlab.org/events/ECML_PKDD_2025_SynDAiTE_Synthetic_Data_for_AI_Trustworthiness_and_Evolution.html</p> <p>[1H25] co-CHAIR of the 5th International Summer School on One Health. The summer school is hosted by Heimerer College, May 26 – 30, 2025, Pristina, Kosovo</p> <p>[DELTA24] co-CHAIR of the Workshop Discovering Drift Phenomena in Evolving Landscapes (DELTA). The workshop is held in conjunction with ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD 2024), August 25, 2024, Barcelona, Spain. https://aiimlab.org/events/KDD_2024_Discovering_Drift_Phenomena_in_Evolving_Landscape.html</p> <p>[DHSI24] GENERAL CHAIR of the 4th International Summer School on Digitalization for Healthcare and Social Impact. The summer school is hosted by Heimerer College, May 27 – 31, 2024, Pristina, Kosovo. https://kolegji-heimerer.eu/summer_school_2024/</p> |
| Journal Review | <p>[VLDB] The International Journal on Very Large Data Bases, ISSN 1066-8888, Springer</p> <p>[TKDD] ACM Transactions on Knowledge Discovery from Data, ISSN 15564681, Association for Computing Machinery Press</p> <p>[TIST] ACM Transactions on Intelligent Systems and Technology, ISSN 21576904, 21576912, Association for Computing Machinery Press</p> <p>[TKDE] IEEE Transactions on Knowledge and Data Engineering, ISSN 10414347, IEEE Computer Society</p> <p>[KAIS] Knowledge and Information Systems, An International Journal, ISSN 02191377, 02193116, Springer London</p> |
| Member of the Program Committee (PC) | <ul style="list-style-type: none"> • European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML-PKDD’25), September 15 – 19, 2025, Porto, Portugal. • The 42nd International Conference on Machine Learning (ICML’25), July 13 – 19, 2025, Vancouver, Canada • The 13th International Conference on Learning Representations (ICLR’25), April 24 – 28, 2025, Singapore, Singapore • The 31st ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD’25), August 3 – 7, 2025, Toronto, Canada • The 18th European Conference on Computer Vision (ECCV’24), September 29 – October 4, 2024, Milan, Italy • The 33rd ACM International Conference on Information and Knowledge Management (CIKM’24), October 21 – 25, 2024, Boise, Idaho, USA • The 28th Pacific-Asia Conference on Knowledge Discover and Data Mining (PAKDD’24), May 7 – 10, 2024, Taipei, Taiwan • IEEE / CVF Computer Vision and Pattern Recognition Conference (CVPR’24), June 17 – 21, 2024, Seattle, WA, USA • The 38th Annual AAAI Conference on Artificial Intelligence (AAAI’24), February 20 – 27, 2024, Vancouver, Canada • SIAM International Conference on Data Mining (SDM’24), April 18-20, 2023, Houston, TX, USA |

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| | <ul style="list-style-type: none"> • 26th European Conference on Artificial Intelligence (ECAI'23) September 30 – October 5, 2023, Krakow, Poland • 29th ACM SIGKDD Conference on Knowledge Discovery and Data Mining, (KDD'23), August 6 – 10, 2023, Long Beach, CA, USA • IEEE International Conference on Computer Vision (ICCV'23), October 2 – 6, 2023, Paris, France • IEEE / CVF Computer Vision and Pattern Recognition Conference (CVPR'23), June 18 – 22, 2023, Vancouver, Canada |
| Tertiary Reviewer (Not in the PC) | <ul style="list-style-type: none"> • SIAM International Conference on Data Mining (SDM'23), April 27 – 29, 2023, Minneapolis, MI, USA • 22nd IEEE International Conference on Data Mining (ICDM'22), November 28 – December 1, 2022, Orlando, FL, USA • 29th International Joint Conference on Artificial Intelligence, (IJCAI'20), January 7 – 15, 2021, Tokyo, Japan • 26th ACM SIGKDD Conference on Knowledge Discovery and Data Mining, (KDD'20), August 23 – 27, 2020, Virtual Conference • 19th IEEE International Conference on Data Mining, (ICDM'19), November 8 – 11, 2019, Beijing, China • European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases, (ECML-PKDD'19), September 16 – 19, 2019, Würzburg, Germany. • 25th ACM SIGKDD Conference on Knowledge Discovery and Data Mining, (KDD'19), August 4 – 8, 2019, Anchorage, AK, USA |
| Conference Presentation | <ul style="list-style-type: none"> • <i>Unifying Evolution, Explanation, and Discernment: A Generative Approach for Dynamic Graph Counterfactuals</i>, 27/08/2024, The 30th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD), Barcelona, Catalonia, Spain. • <i>Robust Stochastic Graph Generator for Counterfactual Explanations</i>, 25/02/2024, The 38th Annual AAAI Conference on Artificial Intelligence (AAAI), Vancouver, British Columbia, Canada. • <i>Multimodal Motion Conditioned Diffusion Model for Skeleton-based Video Anomaly Detection</i>, 04/10/2023, 2023 IEEE/CVF International Conference on Computer Vision (ICCV), Paris, France. • <i>Plotly.plus, an Improved Dataset for Visualization Recommendation</i>, 17-21/10/2022, 31st ACM International Conference on Information and Knowledge Management, Atlanta, Georgia, USA. • <i>CoRoNNA: a deep sequential framework to predict epidemic spread</i>, 22-26/03/2021, SAC'21: Proceedings of the 36th Annual ACM Symposium on Applied Computing, Seoul, South Korea. • <i>A reproducibility study of deep and surface machine learning methods for human-related trajectory prediction</i>. 20/10/2020, 29th ACM International Conference On Information and Knowledge Management, CIKM'20, Galway, Ireland. • <i>A smart peephole on the cloud</i>, 11-15/09/2017, 19th International Conference on Image Analysis and Processing, ICIAP'17, Catania, Italy |
| Conference Participation | <ul style="list-style-type: none"> • 39th Annual AAAI Conference on Artificial Intelligence (AAAI'25), February 27 – March 2, 2025, Philadelphia, Pennsylvania, USA • The 18th European Conference on Computer Vision (ECCV'24), September 29 – October 4, 2024, Milan, Italy • The 30th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD'24), August 25 – 29, 2024, Barcelona, Catalonia, Spain • 38th Annual AAAI Conference on Artificial Intelligence (AAAI'24), February 20 – 27, 2024, Vancouver, British Columbia, Canada • 2023 IEEE/CVF International Conference on Computer Vision (ICCV), (ICCV'23), October 2 – 6, 2023, Paris, France |

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| | <ul style="list-style-type: none"> • 31st ACM International Conference On Information and Knowledge Management, (CIKM'22), October 17 – 21, 2022, Atlanta, USA • 36th ACM/SIGAPP Symposium on Applied Computing, (SAC'21), March 22 – 26, 2021, Seoul, South Korea • 29th ACM International Conference On Information and Knowledge Management, (CIKM'20), October 19 – 23, 2020, Galway, Ireland • 19th International Conference on Image Analysis and Processing, (ICIAP'19), September 11 – 15, 2017, Catania, Italy |
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Part X – Complete list of international publications

| | | |
|---|--|--------------|
| Journals (quartile from SJR according to publication year; Impact Factor from WOS) | | |
| [TVCG24] | L. Podo, B. Prenkaj , P. Velardi. Agnostic Visual Recommendation Systems: Open Challenges and Future Directions. IEEE Transactions on Visualization and Computer Graphics, 2024. DOI: 10.1109/TVCG.2024.3374571 | Q1, IF: 4.7 |
| [TKDE23] | B. Prenkaj , P. Velardi. Unsupervised Detection of Behavioural Drifts with Dynamic Clustering and Trajectory Analysis. IEEE Transactions on Knowledge and Data Engineering, 2023. DOI: 10.1109/TKDE.2023.3320184 | Q1, IF: 8.9 |
| [CSUR23] | M.A. Prado-Romero, B. Prenkaj , G. Stilo, F. Giannotti. A Survey on Graph Counterfactual Explanations: Definitions, Methods, Evaluation, and Research Challenges. ACM Computing Surveys (CSUR) 2023. DOI: 10.1145/3618105 | Q1, IF: 23.8 |
| [AIM23] | B. Prenkaj , D. Aragona, A. Flaborea, F. Galasso, S. Gravina, L. Podo, E. Reda and P. Velardi. A self-supervised algorithm to detect signs of social isolation in the elderly from daily activity sequences. Artificial Intelligence In Medicine. 135 pp. 102454 (2023). DOI: 10.1016/j.artmed.2022.102454 | Q1, IF: 6.1 |
| [FGCS21] | B. Prenkaj , D. Distanto, S. Faralli and P. Velardi. Hidden space deep sequential risk prediction on student trajectories. Future Generation Computer Systems. 125 pp. 532-543 (2021). DOI: 10.1016/j.future.2021.07.002 | Q1, IF: 6.2 |
| [CSUR20] | B. Prenkaj , P. Velardi, G. Stilo, D. Distanto, and S. Faralli. A Survey of Machine Learning Approaches for Student Dropout Prediction in Online Courses. ACM Computing Surveys (CSUR), 53, 3, Article 57 (June 2020), 34 pages. DOI: 10.1145/3388792 | Q1, IF: 23.8 |
| [MTA19] | A. Coletta, M. De Marsico, E. Panizzi, B. Prenkaj and D. Silvestri. MIMOSE: multimodal interaction for music orchestration sheet editors. Multimedia Tools And Applications. 78 pp. 33041-33068 (2019). DOI: 10.1007/s11042-019-07838-0 | Q1, IF: 3 |
| [CC18] | M. De Marsico, E. Nemmi, B. Prenkaj and G. Saturni. House in the (biometric) cloud: a possible application. IEEE Cloud Computing. 5, 58-69 (2018). DOI: 10.1109/MCC.2018.043221015 | Q1, IF: - |
| Conferences (ranking from CORE EDU according to publication year) | | |
| [ICML25b] | S. Yang, B. Prenkaj , G. Kasneci. SCISSOR: Mitigating Semantic Bias through Cluster-Aware Siamese Networks for Robust Classification. In International Conference on Machine Learning 2025. DOI: https://arxiv.org/abs/2506.14587 | A* |
| [ICML25a] | B. Prenkaj *, E. Zaradoukas*, G. Kasneci. Graph Inverse Style Transfer for Counterfactual Explainability. In International Conference on Machine Learning 2025. DOI: https://arxiv.org/abs/2505.17542 | A* |
| [ACL25] | C. Yuan, Z. Zhang, S. Yang, B. Prenkaj , G. Kasneci. Probabilistic Aggregation and Targeted Embedding Optimization for Collective Moral Reasoning in Large Language Models. In Findings of the The 63rd Annual Meeting of the Association for Computational Linguistics. 2025 | A* |
| [AAAI25] | S. Yang*, B. Prenkaj *, G. Kasneci. RAZOR: Sharpening Knowledge by Cutting Bias with Unsupervised Text Rewriting. In Proceedings of the 39th Annual AAAI Conference on Artificial Intelligence (AAAI'25), February 25- March 4, 2025, Philadelphia, Pennsylvania, USA. DOI: https://arxiv.org/abs/2412.07675 | A* |
| [ECCV24] | A. Diko, D. Avola*, B. Prenkaj *, F. Fontana, L. Cinque. Semantically Guided Representation Learning For Action Anticipation. In Proceedings of the 18th | A* |

| | | |
|------------------|---|-----|
| | European Conference on Computer Vision (ECCV'24), September 29 - October 4, 2024, Milan, Italy. DOI: https://link.springer.com/chapter/10.1007/978-3-031-73390-1_26 | |
| [ECML24] | Prado-Romero MA, Prenkaj B , Stilo G. GRETEL 2.0: Generation and Evaluation of Graph Counterfactual Explanations Evolved. In Joint European Conference on Machine Learning and Knowledge Discovery in Databases 2024 Aug 22 (pp. 363-367). Cham: Springer Nature Switzerland. DOI: https://link.springer.com/chapter/10.1007/978-3-031-70371-3_21 | A |
| [KDD24] | B. Prenkaj , M. Villaizan-Vallelado, T. Leemann and G. Kasneci. Unifying Evolution, Explanation, and Discernment: A Generative Approach for Dynamic Graph Counterfactuals. In Proceedings of the 30th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD'24), August, 25-29, 2024, Barcelona, Catalonia, Spain. DOI: https://dl.acm.org/doi/10.1145/3637528.3671831 | A* |
| [XAI24] | T. Leemann, M. Pawelczyk, B. Prenkaj and G. Kasneci. Towards Non-adversarial Algorithmic Recourse. In Proceedings of the 2nd World Conference on Explainable Artificial Intelligence (XAI'24), pp. 395-419, July, 17-19, 2024, Valletta, Malta. DOI: 10.1007/978-3-031-63800-8_20 | N/A |
| [AAAI24] | M.A. Prado-Romero*, B. Prenkaj* and G. Stilo. Robust Stochastic Graph Generator for Counterfactual Explanations. In Proceedings of the 38th Annual AAAI Conference on Artificial Intelligence (AAAI'24), February 20-27, 2024, Vancouver, British Columbia, Canada. DOI: 10.1609/aaai.v38i19.30149 | A* |
| [ICCV23] | A. Flaborea, L. Collorone, G. M. di Melendugno D'Amely, S. D'Arrigo, B. Prenkaj and F. Galasso. Multimodal Motion Conditioned Diffusion Model for Skeleton-based Video Anomaly Detection. In Proceedings of the IEEE/CVF International Conference on Computer Vision (ICCV'23), pp. 10318-10329. October 1 - 7, 2023, Paris, France. DOI: https://arxiv.org/abs/2307.07205 | A* |
| [ICLR23] | M.A. Prado-Romero, B. Prenkaj and G. Stilo. Revisiting CounteRGAN for Counterfactual Explainability of Graphs. In Proceedings of the Eleventh International Conference on Learning Representations (ICLR'23) Tiny Paper. May 1 - 5, 2023, Kigali, Rwanda. DOI: https://openreview.net/pdf?id=d0m0Rl15q3g | A* |
| [WSDM23] | M.A. Prado-Romero, B. Prenkaj and G. Stilo. Developing and Evaluating Graph Counterfactual Explanation with GRETEL. In Proceedings of the Sixteenth ACM International Conference on Web Search and Data Mining (WSDM'23). February 27 - March 3, 2023, Singapore, Singapore. DOI: 10.1145/3539597.3573026 | A* |
| [SAC21] | D. Aragona, L. Podo, B. Prenkaj , and P. Velardi. CoRoNNA: a deep sequential framework to predict epidemic spread. In Proceedings of the 36th Annual ACM Symposium on Applied Computing (SAC'21), pp. 10-17. 2021. DOI: 10.1145/3412841.3441883 | B |
| [PAKDD21] | H. Sarvari, C. Domeniconi, B. Prenkaj and G. Stilo. Unsupervised Boosting-Based Autoencoder Ensembles for Outlier Detection. In Karlapalem K. et al. (eds) Advances in Knowledge Discovery and Data Mining. (PAKDD'21), Lecture Notes in Computer Science, Springer, vol 12712. DOI: 10.1007/978-3-030-75762-5_8 | A |
| [CIKM20a] | B. Prenkaj , G. Stilo, L. Madeddu. Challenges and Solutions to the Student Dropout Prediction Problem in Online Courses. In Proceedings of the 29th ACM International Conference on Information & Knowledge Management (CIKM'20), Association for Computing Machinery, 2020, p.3513–3514. DOI: 10.1145/3340531.3412172 | A* |
| [CIKM20b] | B. Prenkaj , P. Velardi, D. Distanti, and S. Faralli. A Reproducibility Study of Deep and Surface Machine Learning Methods for Human-related Trajectory Prediction. In Proceedings of the 29th ACM International Conference on Information & Knowledge Management (CIKM'20). Association for Computing Machinery, New York, NY, USA, 2169–2172. DOI: 10.1145/3340531.3412088 | A* |
| Workshops | | |
| [ICIAP17] | De Marsico M, Nemmi E, Prenkaj B , Saturni G. A smart peephole on the cloud. In New Trends in Image Analysis and Processing–ICIAP 2017: ICIAP International Workshops, WBICV, SSP and BE, 3AS, RGBD, NIVAR, IWBAAS, and MADiMa 2017, Catania, Italy, September 11-15, 2017, Revised Selected Papers 19 2017 (pp. 364-374). Springer International Publishing. DOI: 10.1007/978-3-319-70742-6_34 | |
| [XAI.it22] | M.A. Prado-Romero, B. Prenkaj , G. Stilo, A. Celi, E. Estevanell-Valladares and D. Valdés-Pérez. Ensemble approaches for Graph Counterfactual Explanations. In the Third Italian Workshop on | |

| | |
|------------|---|
| | Explainable Artificial Intelligence, XAI.it, 2022, Vol. 3277, pp. 88-97. DOI: https://ceur-ws.org/Vol-3277/paper6.pdf |
| [W/VAND23] | A. Flaborea, B. Prenkaj , B. Munjal, M. Sterpa, D. Aragona, L. Podo and F. Galasso. Are we certain it's anomalous? VAND: Visual Anomaly and Novelty Detection, CVPR 2023 Workshop. (2023), June 18 2023, Vancouver, Canada, DOI: https://openaccess.thecvf.com/content/CVPR2023W/VAND/html/Flaborea_Are_We_Certain_Its_Anomalous_CVPRW_2023_paper.html |
| [DynXAI23] | B. Prenkaj , M. Villaizan-Vallelado, T. Leemann, G. Kasneci. Adapting to Change: Robust Counterfactual Explanations in Dynamic Data Landscapes. In Joint European Conference on Machine Learning and Knowledge Discovery in Databases 2023 Sep 18 (pp. 325-337). Cham: Springer Nature Switzerland. DOI: 10.1007/978-3-031-74630-7_22 |
| [XKDD23] | M.A. Prado-Romero, B. Prenkaj , G. Stilo. Are Generative-Based Graph Counterfactual Explainers Worth It?. In Joint European Conference on Machine Learning and Knowledge Discovery in Databases 2023 Sep 18 (pp. 152-170). Cham: Springer Nature Switzerland. DOI: 10.1007/978-3-031-74633-8_10 |