Anna Dalla Vecchia

★ 22 April 1999   ⚲ Viale Milano 33 – 36075 Montecchio Maggiore (VI) - Italy
📱 +39 3450314758   •   ✉ anna.dallavecchia@univr.it   •   🐙 4nnina
in anna-dalla-vecchia-3736ba1b4

Education

Ph.D. in Computer Science	**Verona, Italy**
University of Verona - Department of Computer Science	*Oct 2023 – 2026*

Supervisor: Professor Elisa Quintarelli

Master's degree in Computer Science and Engineering	**Verona, Italy**
University of Verona - Department of Computer Science	*Oct 2021 – Jul 2023*

Second-level Degree (2 years)
Grade: 110/110 with honors
Thesis: The Synergies of Context and Data Aging in Recommendations: Issues and Solutions
Supervisor: Professor Elisa Quintarelli

Bachelor's degree in Computer Science	**Verona, Italy**
University of Verona - Department of Computer Science	*Oct 2018 – Jul 2021*

First-level Degree (3 years)
Grade: 110/110 with honors
Thesis: Taint Analysis: tracciamento di informazioni sensibili tramite analisi statica di codice COBOL
       Taint Analysis: tracking sensitive information through static analysis of COBOL *code*
Supervisor: Professor Isabella Mastroeni

Italian secondary school diploma	**Arzignano (VI), Italy**
Liceo L. Da Vinci	*Sep 2013 – Jun 2018*

Liceo Scientifico opzione science applicate

Research and Work experience

Visiting Researcher	**Tampere, Finland**
Tampere University - Faculty of Information Technology and Communication Sciences	*Feb 2025 – Jun 2025*

Research visit focused on fairness and bias in context-aware recommender systems.
Supervised by Professor Kostas Stefanidis.

Occasional self-employment	**Verona, Italy**
University of Verona - Department of Computer Science	*May 2023 – Jun 2023*

CT05/23: "Sviluppo di un applicativo per l'assegnazione semi-automatica della quota prodotti del FUR"

The research activity involved the development of an application for:
○ the automatic extraction from Scopus of information on scientific publications published in a time window from a list of authors.
○ Their storage in a relational database.
○ The semi-automatic assignment of products to each author in order to meet annually defined criteria and optimize functions predetermined a priori.

Curricular internship	**Verona, Italy**
University of Verona - Department of Computer Science	*Sep 2022 – Nov 2022*

Study and development of data mining algorithms for analysing heterogeneous data from sensors in order to provide recommendations and make predictions. In particular:
○ Analysis of sensor data.
○ Study and implementation of discretization techniques.
○ Study of the Apriori data mining algorithm with aging
○ Made recommendations on two different datasets (wearable sensor and tv programs)

Research Fellowship   **Verona, Italy**

University of Verona - Department of Computer Science   *Apr 2022 - Jul 2022*

BO02/22: "Studio ed implementazione di tecniche di machine learning per la previsione dell'occupazione di punti di interesse turistico."

The research aims to:
○ Study of data and machine learning and deep learning techniques.
○ Implementation of a prediction system for the occupation of tourist points of interest.

The research resulted in the production of a paper entitled "Forecasting POI Occupation with Contextual Machine Learning" accepted in 26th European Conference on Advances in Databases and Information Systems (ADBIS 2022).

Principal investigator of the project: Professor Alberto Belussi

Research Fellowship   **Verona, Italy**

University of Verona - Department of Computer Science   *Oct 2021 - Mar 2022*

BO31/21: "Progettazione e sviluppo di un'applicazione web per la gestione di dati spazio-temporali con contenuto multilingua relativi al contesto turistico"

The research aimed to:
○ Development of a web application to manage the data with the Django framework.
○ Visualisation, analysis, and processing of tourism data to study the trend of the tourist flow.

Principal investigator of the project: Professor Alberto Belussi

Curricular internship   **Verona, Italy**

University of Verona - Department of Computer Science   *Nov 2020 – Jan 2021*

Code improvement of a static COBOL analyzer. In particular:
○ increasing the coverage of the test suite relating to interval analysis
○ code refactoring

Employee   **Montecchio Maggiore (VI), Italy**

Cantine Vitevis Società Cooperativa Agricola   *Aug 2019 – Oct 2021*

Seasonal employee at a winery during the harvest. In particular:
○ processing, checking and correction of delivery notes
○ verification and updating of customer data in the computer system

Teaching activities

Teacher Assistant

University of Verona - Department of Computer Science (VR) Italy   *Oct 2023 - Jul 2025*
Teacher Assistant for the course "Programming and Database" in the first year of the master's degree in Data Science.

Teacher Assistant

University of Verona - Department of Computer Science (VR) Italy   *Oct 2024 - Jul 2025*
Teacher Assistant for the course "Programming I" in the first year of the bachelor's degree in Computer Science.

Teacher Assistant

University of Verona - Department of Computer Science (VR) Italy   *Oct 2023 - Jul 2024*
Teacher Assistant for the course "Programming and Database" in the first year of the master's degree in Data Science.

Teacher Assistant

University of Verona - Department of Computer Science (VR) Italy   *Oct 2023 - Jul 2024*
Teacher Assistant for the course "Programming I" in the first year of the bachelor's degree in Computer Science.

Teacher Assistant

University of Verona - Department of Computer Science (VR) Italy   *Mar 2022 - Jul 2023*
Teacher Assistant for the course "Databases" in the last year of the bachelor's degree in Computer Science.

Teacher Assistant

University of Verona - Department of Computer Science (VR) Italy   *Oct 2022 - Jul 2023*
Teacher Assistant for the course "Programming I" in the first year of the bachelor's degree in Computer Science.

Workshop

Speech at the workshop "Donne in Informatica" at Job&Orienta2022 in Verona

Speech at the presentation of the project "NERD? Non è roba per donne?" for the University of Verona

Personal skills

Digital competence...

Programming

Programming languages: Python (Scikit-learn, Keras, Tensorflow, Pandas, Numpy), C, Java, MATLAB

Software modeling languages: UML

Editor languages: LaTeX, HTML

Data Management

Database Management Systems (DBMS): PostgreSQL, Cassandra, MySQL

Query languages: SQL, N1QL

Big Data: Apache Spark

Development

Web development: Django, Flask

Conference participation

Turin (Italy), 25-27 Sep 2024

Participation at the 18th IEEE International Conference Application of Information and Communication Technologies (AICT 2024).

Wien (Austria), 10-13 Sep 2024

Participation at the 28th International Conference on Enterprise Design, Operations, and Computing (EDOC 2024).

Paestum (Italy), 24-28 Mar 2024

Participation at the 27th International Conference on Extending Database Technology (EDBT 2024)
Participation at the 8th International Workshop on Data Analytics solutions for Real-LIfe APplications (DARLI-AP 2024).

Barcelona (Spain), 4-7 Sep 2023

Participation at the 27th European Conference on Advances in Databases and Information Systems (ADBIS 2023).

Galzignano Terme (Italy), 2-5 Jul 2023

Participation at the 31st Symposium on Advanced Database Systems (SEBD 2023).

Turin (Italy), 5-8 Sep 2022

Participation at the 26th European Conference on Advances in Databases and Information Systems (ADBIS 2022).

Publications

Journal Articles...

○   <u>Anna Dalla Vecchia</u>, Sara Migliorini, Elisa Quintarelli, Mauro Gambini and Alberto Belussi. "Promoting sustainable tourism by recommending sequences of attractions with deep reinforcement learning". In: *Information Technology & Tourism* 26.3 (2024), pp. 449–484. DOI: `https://doi.org/10.1007/s40558-024-00288-x`.

○   Sara Migliorini, <u>Anna Dalla Vecchia</u>, Alberto Belussi and Elisa Quintarelli. "ARTEMIS: a context-aware recommendation system with crowding forecaster for the touristic domain". In: *Information Systems Frontiers* (2024), pp. 1–27. DOI: `https://doi.org/10.1007/s10796-024-10512-y`.

International Conference Papers

- Beatrice Amico, Carlo Combi, <u>Anna Dalla Vecchia</u>, Sara Migliorini, Barbara Oliboni and Elisa Quintarelli. "Enhancing Business Process Models with Ethical Considerations". In: *Enterprise Design, Operations, and Computing. EDOC 2024 Workshops.* Ed. by Monika Kaczmarek-Heß, Kristina Rosenthal, Marek Suchánek, Miguel Mira Da Silva, Henderik A. Proper and Marianne Schnellmann. Cham: Springer Nature Switzerland, 2025, pp. 3–17. DOI: `https://doi.org/10.1007/978-3-031-79059-1_1`.

- * <u>Anna Dalla Vecchia</u>, Niccolò Marastoni and Elisa Quintarelli. "Anomaly detection to infer context changes in temporal data". In: *2024 IEEE 18th International Conference on Application of Information and Communication Technologies (AICT)*. 2024, pp. 1–6. DOI: `10.1109/AICT61888.2024.10740439`.

- Alberto Belussi, <u>Anna Dalla Vecchia</u>, Mauro Gambini, Sara Migliorini and Elisa Quintarelli. "Understanding the Evolution in Tourist Behavior Patterns through Context-Aware Spatio-Temporal k-Means". In: *2024 IEEE International Conference on Big Data (BigData)*. 2024, pp. 5243–5252. DOI: `10.1109/BigData62323.2024.10825876`.

- * <u>Anna Dalla Vecchia</u>, Niccolò Marastoni, Sara Migliorini, Barbara Oliboni and Elisa Quintarelli. "Mining Totally Ordered Sequential Rules to Provide Timely Recommendations". In: *New Trends in Database and Information Systems.* Ed. by Alberto Abelló, Panos Vassiliadis, Oscar Romero, Robert Wrembel, Francesca Bugiotti, Johann Gamper, Genoveva Vargas Solar and Ester Zumpano. Cham: Springer Nature Switzerland, 2023, pp. 197–207. DOI: `https://doi.org/10.1007/978-3-031-42941-5_18`.

- <u>Anna Dalla Vecchia</u>, Niccolò Marastoni, Barbara Oliboni and Elisa Quintarelli. "The Synergies of Context and Data Aging in Recommendations". In: *Big Data Analytics and Knowledge Discovery.* Ed. by Robert Wrembel, Johann Gamper, Gabriele Kotsis, A. Min Tjoa and Ismail Khalil. Cham: Springer Nature Switzerland, 2023, pp. 80–87. DOI: `https://doi.org/10.1007/978-3-031-39831-5_7`.

- Alberto Belussi, Andrea Cinelli, <u>Vecchia, Anna Dalla</u>, Sara Migliorini, Michele Quaresmini and Elisa Quintarelli. "Forecasting POI Occupation with Contextual Machine Learning". In: *Advances in Databases and Information Systems.* Ed. by Silvia Chiusano, Tania Cerquitelli and Robert Wrembel. Cham: Springer International Publishing, 2022, pp. 361–376. DOI: `https://doi.org/10.1007/978-3-031-15740-0_26`.

National Conference Papers

- <u>Anna Dalla Vecchia</u>, Niccolò Marastoni, Barbara Oliboni and Elisa Quintarelli. "ICARE: An Intuitive Context-Aware Recommender with Explanations". In: *Proceedings of the 31st Symposium of Advanced Database Systems, Galzingano Terme, Italy, July 2nd to 5th, 2023*. Vol. 3478. CEUR Workshop Proceedings. CEUR-WS.org, 2023, pp. 623–631. URL: `https://ceur-ws.org/Vol-3478/paper45.pdf`.

- * <u>Anna Dalla Vecchia</u>, Sara Migliorini, Elisa Quintarelli and Alberto Belussi. "A Context-Aware Recommendation System with a Crowding Forecaster". In: *Proceedings of the 31st Symposium of Advanced Database Systems, Galzingano Terme, Italy, July 2nd to 5th, 2023*. Vol. 3478. CEUR Workshop Proceedings. CEUR-WS.org, 2023, pp. 632–640. URL: `https://ceur-ws.org/Vol-3478/paper41.pdf`.

Workshop Papers

- * <u>Anna Dalla Vecchia</u>, Niccolò Marastoni and Elisa Quintarelli. "In Time Recommendations through an Associative Classifier and LookBackApriori: a Case Study". In: *Proceedings of the Workshops of the EDBT/ICDT 2024 Joint Conference co-located with the EDBT/ICDT 2024 Joint Conference, Paestum, Italy, March 25, 2024*. Ed. by Themis Palpanas and H. V. Jagadish. Vol. 3651. CEUR Workshop Proceedings. CEUR-WS.org, 2024. URL: `https://ceur-ws.org/Vol-3651/DARLI-AP-9.pdf`.

○ <u>Anna Dalla Vecchia</u>, Barbara Oliboni and Elisa Quintarelli. "ICARE: the principles of Explainable AI in a Context-aware Recommendation APP". In: *Proceedings of the Workshops of the EDBT/ICDT 2024 Joint Conference co-located with the EDBT/ICDT 2024 Joint Conference, Paestum, Italy, March 25, 2024*. Ed. by Themis Palpanas and H. V. Jagadish. Vol. 3651. CEUR Workshop Proceedings. CEUR-WS.org, 2024. URL: `https://ceur-ws.org/Vol-3651/HeDAI-2.pdf`.

Book Chapters..

○ Barbara Oliboni, <u>Anna Dalla Vecchia</u>, Niccolò Marastoni and Elisa Quintarelli. "ICARE: An Intuitive Context-Aware Recommender with Explanations". In: *Advances in Smart Healthcare Paradigms and Applications: Outstanding Women in Healthcare—Volume 1*. Ed. by Halina Kwaśnicka, Nikhil Jain, Urszula Markowska-Kaczmar, Chee Peng Lim and Lakhmi C. Jain. Cham: Springer Nature Switzerland, 2023, pp. 65–86. DOI: `10.1007/978-3-031-37306-0_4`.

∗ indicates papers presented by the author.

Awards

2024: 🏆 **Best Paper Award** for *"Promoting sustainable tourism by recommending sequences of attractions with deep reinforcement learning"* at *Information Technology & Tourism*.

Winner of a scholarship for participation in the 26th European Conference on Advances in Databases and Information Systems (ADBIS 2022) with the Diversity and Inclusion program.

Academic Service

2025: **Workshop Chair** – Fairness Exploration in Heterogeneous Data and Algorithms (FEHDA 2025), co-located with the 29th European Conference on Advances in Databases and Information Systems (ADBIS 2025).

Academic Profiles

G **Google Scholar**: scholar.google.com/citations/7v3fqEEAAAAJ
Scopus: scopus.com/authid/58552951100
ORCID: orcid.org/0000-0001-7026-5205
DBLP: dblp.org/pid/327/9854.html
ResearchGate: researchgate.net/profile/Anna-Dalla-Vecchia

Langues

Italian: mother tongue
English: upper-intermediate
Spanish: elementary

Verona, 18 August 2025
Anna Dalla Vecchia