

Curriculum Vitae

Giuseppe Spillo
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Updated July 2024

1 Education

- 2016, July: High School Diploma at Istituto Tecnico Industriale Statale Luigi Dell’Erba, Castellana Grotte (BA), Computer Science and Telecommunications.
Graduation mark: 100/100 cum Laude.
- 2019, October: Bachelor’s Degree in ”Computer Science and Software Production Technologies” at University of Bari Aldo Moro.
Title of the thesis: *Exploiting Distributional Semantics to Generate Context-Aware Explanations for Recommender Systems*.
Supervisor: Prof. Cataldo Musto.
Graduation mark: 110/110 cum Laude.
- 2022, April: Master’s Degree in ”Computer Science”, curriculum ”Knowledge Engineering and Machine Intelligence” at University of Bari Aldo Moro.
Title of the thesis: *Neuro-Symbolic Recommender Systems combining Graph Embeddings and First-Order Logic Rules*.
Supervisors: Prof. Giovanni Semeraro, Prof. Cataldo Musto
Graduation mark: 110/110 cum Laude.
- 2022, October - **present**: Ph.D. Student in ”Computer Science and Mathematics”, XXXVIII cycle, at University of Bari Aldo Moro.
Research areas: Knowledge-Aware Recommendation Algorithms.
Supervisors: Prof. Cataldo Musto, Prof. Marco de Gemmis
- 2023, April - **present**: research fellowship on *Recommender Systems and Digital Storytelling in Tourism*.

2 Work Experiences and Internships

- 2016, February: stage at Politecnico di Bari. *Study of the Apache Cordova framework for hybrid (desktop and mobile) web application development*.
- 2022, May - 2022, August: Contingent work at University of Bari Aldo Moro. *Development of a prototype for structured information extraction from text by using NLP techniques*.

3 Publications

3.1 Published papers

- Musto, C., **Spillo, G.**, de Gemmis, M., Lops, P., Semeraro, G. (2020). Exploiting Distributional Semantics Models for Natural Language Context-aware Justifications for Recommender Systems. In IntRS@ RecSys (pp. 65-71).

- **Spillo, G.**, Musto, C., de Gemmis, M., Lops, P., Semeraro, G. (2020). Exploiting Distributional Semantics Models for Natural Language Context-aware Justifications for Recommender Systems. *Computational Linguistics CLiC-it 2020*, 394
- **Spillo, G.**, Musto, C., De Gemmis, M., Lops, P., Semeraro, G. (2022). Knowledge-aware Recommendations Based on Neuro-Symbolic Graph Embeddings and First-Order Logical Rules. In *Proceedings of the 16th ACM Conference on Recommender Systems* (pp. 616-621).
- **Spillo, G.**, Musto, C., de Gemmis, M., Lops, P., Semeraro, G. (2022). Exploiting Neuro-Symbolic Graph Embeddings based on First-Order Logical Rules for Knowledge-aware Recommendations. In *Proceedings of the 21st International Conference of the Italian Association for Artificial Intelligence (AIxIA 2022)*, Udine, Italy.
- **Spillo, G.** (2022). Knowledge-aware Recommendation Algorithms Combining Graph and Word Embeddings. Doctoral Consortium, 21st International Conference of the Italian Association for Artificial Intelligence (AIxIA 2022), Udine, Italy.
- **Spillo, G.**, Musto, C., Polignano, M., Lops, P., de Gemmis, M., Semearo, G. (2023). Combining Graph Neural Networks and Sentence Encoders for Knowledge-aware Recommendations. In *Proceedings of the 31st ACM Conference on User Modeling, Adaptation and Personalization (UMAP '23)*, June 26th–29th, 2023, Limassol, Cyprus.
- **Spillo, G.** (2023). Combining Heterogeneous Embeddings for Knowledge-Aware Recommendation Models. Doctoral Consortium. In *Proceedings of the 31st ACM Conference on User Modeling, Adaptation and Personalization (UMAP '23)*, June 26th–29th, 2023, Limassol, Cyprus
- **Spillo, G.**, De Filippo, A., Musto, C., Milano, M., Semeraro, G. (2023). Towards Sustainability-aware Recommender Systems: Analyzing the Trade-off Between Algorithms Performance and Carbon Footprint. In *Proceedings of the 17th ACM Conference on Recommender Systems (RecSys '23)*, September 18th–22nd, 2023, Singapore.
- **Spillo, G.** (2023). Knowledge-Aware Recommender Systems based on Multi-Modal Information Sources. In *Proceedings of the 17th ACM Conference on Recommender Systems (RecSys '23)*, September 18th–22nd, 2023, Singapore.
- Musto, C., **Spillo, G.**, Semeraro, G. (2023). Harnessing Distributional Semantics to Build Context-aware Justifications for Recommender Systems. *Journal: User Modeling and User-Adapted Interaction*.
- Petruzzelli, A., Martina, A.F.M., **Spillo, G.**, Musto, C., Lops, P., de Gemmis, M., Semeraro, G. (2024). Improving Transformer-based Sequential Conversational Recommendations through Knowledge Graph Embeddings. In *Proceedings of the 32nd ACM Conference on User Modeling, Adaptation and Personalization (UMAP '24)*, July 1st–4th, 2024, Cagliari, Italy.
- **Spillo, G.**, Bottalico, F., Musto, C., Lops, P., de Gemmis, M., Semeraro, G. (2024). Evaluating Content-based Pre-Training Strategies for a Knowledge-aware Recommender System based on Graph Neural Networks. In *Proceedings of the 32nd ACM Conference on User Modeling, Adaptation and Personalization (UMAP '24)*, July 1st–4th, 2024, Cagliari, Italy.
- **Spillo, G.**, De Filippo, A., Musto, C., Milano, M., Semeraro, G. (2023). Towards Green Recommender Systems: Investigating the Impact of Data Reduction on Carbon Footprint and Algorithm Performances. In *Proceedings of the 18th ACM Conference on Recommender Systems (RecSys '24)*, Bari 14th-18th, 2024, Italy.

4 Oral expositions and participation in conventions and conferences

- 2020/09/26: RecSys 20: 16th ACM Conference on Recommender Systems (Online), 2020.
Role: participant.
- 2021/03/01: CLIC-IT 2020 - Seventh Italian Conference on Computational Linguistics, ALIC - Associazione Italiana di Linguistica Computazionale, Bologna (Online conference).
Role: **Speaker**, presenting the paper *Exploiting Distributional Semantics Models for Natural Language Context-aware Justifications for Recommender Systems*.
- 2022/09/22: RecSys 22: 16th ACM Conference on Recommender Systems, 2022.
Roles:

- Online participant.
- Online student volunteer.
- 2022/11/28: AIxIA 22: 21st International Conference of the Italian Association for Artificial Intelligence. Role: **Speaker** at the Doctoral Consortium session, presenting the paper *Knowledge-aware Recommendation Algorithms Combining Graph and Word Embeddings*.
- 2022/11/29: AIxIA 22: 21st International Conference of the Italian Association for Artificial Intelligence. Role: **Speaker** at the Main Track session, presenting the paper *Exploiting Neuro-Symbolic Graph Embeddings based on First-Order Logical Rules for Knowledge-aware Recommendations*.
- 2023/06/27: UMAP 23: 31st ACM Conference on User Modeling, Adaptation, and Personalization. Roles:
 - **Speaker** at the Main Track session, presenting the paper *Combining Graph Neural Networks and Sentence Encoders for Knowledge-aware Recommendations*.
 - **Speaker** and at the Doctoral Consortium session and round table, discussing the paper *Combining Heterogeneous Embeddings for Knowledge-Aware Recommendation Models*.
 - Student Volunteer
- 2023/09/18: RecSys 23: the 17th ACM Conference on Recommender Systems. Roles:
 - **Speaker** at the Doctoral Symposium session, discussing the paper *Knowledge-Aware Recommender Systems based on Multi-Modal Information Sources*.
 - **Speaker** at the poster sessions, discussing the paper *Towards Sustainability-aware Recommender Systems: Analyzing the Trade-off Between Algorithms Performance and Carbon Footprint*
 - Student Volunteer
- 2024/05/29: Ital-IA: il Quarto Convegno Nazionale CINI sull'Intelligenza Artificiale Roles:
 - **Speaker** at the workshop *AI per la Sostenibilità*, presenting the paper *Analyzing the Impact of Data Reduction on Carbon Footprint and Performances of Recommender Systems*
- 2024/07/01: UMAP 24: 32nd ACM Conference on User Modeling, Adaptation, and Personalization. Roles:
 - **Speaker** at the Main Track session for the paper *Evaluating Content-based Pre-Training Strategies for a Knowledge-aware Recommender System based on Graph Neural Networks*
 - Student Volunteer
- 2024/07/9-11: Workshop PhD Days 2024 - Uniba PhD Programme in Computer Science and Mathematics Roles:
 - **Organizer**
 - **Speaker**

5 Program Committee and Review Activity

I have been part of the Program Committee for the following international conferences:

- **RecSys '23**: the 17th ACM Conference on Recommender Systems, Singapore, 18th-22nd, 2023
 - Late Breaking Results Track
- **UMAP '24**: the 32nd ACM Conference on User Modeling, Adaptation and Personalization, Cagliari, Italy, July 1st-4th, 2024
 - Main Track
 - Late Breaking Results and Demo Papers Track
 - Workshop EXUM

- **RecSys '24**: the 18th ACM Conference on Recommender System, Bari, Italy, October 14th-18th, 2024.
 - Full Papers Track
 - Short Papers Track

Moreover, I have been reviewer for the following international conferences and journals:

- **JIFS**: Journal on Intelligent & Fuzzy Systems (3 papers reviewed)
- **TOIS**: Transactions on Information Systems
- **RecSys '23**: the 17th ACM Conference on Recommender Systems, Singapore, 18th-22nd, 2023. Track: Late-Breaking Results.
- **UMAP '24**: the 32nd ACM Conference on User Modeling, Adaptation and Personalization, Cagliari, Italy, July 1st-4th, 2024.
 - Full and Short Papers Track
 - Late Breaking Results and Demo Papers Track
 - ExUM Workshop
- **RecSys '24**: the 18th ACM Conference on Recommender System, Bari, Italy, October 14th-18th, 2024.
 - Full Paper Track
 - Short Paper Track
- **SIGIR '24**: The 47th International ACM SIGIR Conference on Research and Development in Information Retrieval, Washington D.C., USA.

6 Awards

- RecSys 2020: winner of a Student Grant, including a free subscription to the conference.
- RecSys 2022: winner of a Student Grant, including a free subscription to the conference.
- AIXIA 2022: winner of a Student Grant, including a free subscription to the conference.
- UMAP 2023:
 - **Best Student Paper Award**, for the paper *Combining Graph Neural Networks and Sentence Encoders for Knowledge-aware Recommendations*.
 - Winner of Student Grant, including a free subscription to the conference.
- RecSys 2023: winner of a Doctoral Symposium Grant

7 Doctoral Schools attended

- DeepLearn Spring School 2023. April 3rd-7th, Bari, Italy.
 - Student Volunteer
- RecSys Summer School 2023. June 12th-16th, 2023, Copenhagen, Denmark.
- AILC Lectures on Computational Linguistics 2024. June 19th-21th, 2024, Bari, Italy.