ANDREEA IANA

Mannheim, Germany

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RESEARCH INTERESTS

News Recommender Systems, Algorithmic Bias, Multilingual & Few-Shot Recommendation, Cross-lingual Transfer, Retrieval-Augmented Generation

EDUCATION

Ph.D. Computer Science, University of Mannheim

08/2020 - 10/2025

Topics: Algorithmic Bias & Diversity in News Recommendation, Cross-lingual & Few-Shot Recommendation Advisors: Heiko Paulheim (University of Mannheim), Goran Glavaš (University of Würzburg)

M.Sc. Business Informatics (with honors), University of Mannheim

09/2017 - 07/2020

Focus: Machine Learning, NLP, Deep Learning; Grade: 1.2*

B.Sc. Liberal Arts and Sciences (summa cum laude), Maastricht University

09/2013 - 07/2017

Focus: Computer Science & Business Administration; Grade: 8.6** (top 1% of class)

SELECTED PUBLICATIONS

- [1] Martin Böckling, Heiko Paulheim, **Andreea Iana**. Walk&Retrieve: Simple Yet Effective Zero-shot Retrieval-Augmented Generation via Knowledge Graph Walks, *IR-RAG @ SIGIR25*, 2025.
- [2] Andreea Iana, Fabian David Schmidt, Goran Glavaš, Heiko Paulheim. News Without Borders: Domain Adaptation of Multilingual Sentence Embeddings for Cross-lingual News Recommendation, ECIR, 2025.
- [3] Andreea Iana, Goran Glavaš, Heiko Paulheim. Train Once, Use Flexibly: A Modular Framework for Multi-Aspect Neural News Recommendation, EMNLP Findings, 2024.
- [4] **Andreea Iana**, Goran Glavaš, Heiko Paulheim. MIND Your Language: A Multilingual Dataset for Cross-lingual News Recommendation, *SIGIR*, 2024.
- [5] Andreea Iana, Goran Glavaš, and Heiko Paulheim. NewsRecLib: A PyTorch-Lightning Library for Neural News Recommendation, EMNLP: System Demonstrations, 2023.
- [6] Andreea Iana, Goran Glavaš, Heiko Paulheim. Simplifying Content-Based Neural News Recommendation: On User Modeling and Training Objectives, SIGIR, 2023.
- [7] Katharina Ludwig, Alexander Grote, **Andreea Iana**, Mehwish Alam, Heiko Paulheim, Harald Sack, Christof Weinhardt, Philipp Müller. Divided by the Algorithm? The (Limited) Effects of Content- and Sentiment-Based News Recommendation on Affective, Ideological, and Perceived Polarization, Social Science Computer Review, 2023.
- [8] Anna Breit, Laura Waltersdorfer, Fajar J. Ekaputra, Marta Sabou, Andreas Ekelhart, **Andreea Iana**, Heiko Paulheim, Jan Portisch, Artem Revenko, Annette Ten Teije, Frank Van Harmelen. Combining Machine Learning and Semantic Web: A Systematic Mapping Study, ACM Computing Surveys, 2023.
- [9] Mehwish Alam, **Andreea Iana**, Alexander Grote, Katharina Ludwig, Philipp Müller, Heiko Paulheim. Towards Analyzing the Bias of News Recommender Systems Using Sentiment and Stance Detection, WWW '22 Companion, 2022.
- [10] Andreea Iana, Mehwish Alam, Heiko Paulheim. A Survey on Knowledge-aware News Recommender Systems, Semantic Web, 2022.
- [11] **Andreea Iana**, Heiko Paulheim. GraphConfRec: A Graph Neural Network-Based Conference Recommender System, *JCDL*, 2021.

PROFESSIONAL EXPERIENCE

Research Associate, University of Mannheim

Mannheim (DE), 08/2020 - present

Research on algorithmic bias in news recommendation; multilingual & few-shot recommendation; cross-lingual transfer in content-based recommendation; retrieval-augmented generation

^{*} On a scale of 1.0 to 5.0 with 1.0 being the best possible grade; ** On a scale of 1.0 to 10.0 with 10.0 being the best possible grade

Projects: ReNewRS (detecting, analyzing, preventing political polarization in news recommender systems)

Visiting Researcher, University of Würzburg

Würzburg (DE), 12/2023 - 02/2024

Multilingual and cross-lingual news recommendation (host: Goran Glavaš, result: xMIND)

Student Research Assistant, University of Mannheim

Mannheim (DE), 11/2018 - 04/2020

Projects: impact of A-box materialization on RDF2vec knowledge graph embeddings (result: CIKM workshop paper); entity matching in knowledge graphs; implementation of n-triples Cython parser

TEACHING & SUPERVISION

Tutorials Data Mining (Fall 2024, Spring 2025), Data Mining I (Fall 2023), Data Mining II (Spring

2024)

Thesis Supervision Diversity in news recommendation (Bachelor, Fall 2023), scientific research recommendation

(Master, Fall 2023)

Team Projects News recommendation library (Spring 2022), study-advice ChatBot development (Fall 2023)

COMMUNITY SERVICE & ACTIVITIES

Chair of 13th International Workshop on News Recommendation and Analytics (INRA

2025)

PC Member ISWC 2024 (Research Track), ESWC 2024 (Resources Track), International Workshop

on Knowledge Graphs for Online Discourse Analysis (BeyondFacts @ WWW 2023, 2024, 2025), Workshop on Natural Language Processing for Political Sciences (PoliticalNLP @ LREC 20222, @ LREC-COLING 2024), Deep Learning for Knowledge Graphs Workshop

(DL4KG @ ISWC 2023)

Conference Reviewer ARR (ACL, EMNLP), SIGIR 2025 (Resource & Reproducibility Papers), RecSys 2025

(Late Breaking Results)

Journal Reviewer Journal of Web Semantics, Information Systems Journal

Open Source NewsRecLib – news recommendation framework integrating PyTorch(-Lightning) & Hydra

SKILLS

Programming excellent proficiency in Python, Linux CLI; good familiarity with Git, HPC with Slurm ML Frameworks advanced proficiency in PyTorch(-Lightning), Hydra, WandB, HuggingFace Transformers

Languages Romanian (native), English (native-level, C2 level), German (intermediate proficiency, B1 level)