

Clara Rus

Curriculum Vitae

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in clara-rus
ClaraRus

Education

- Nov 2022 – **PhD in Fairness in Information Retrieval**, *University of Amsterdam*
Present *Research interests:* Trustworthy and responsible AI with a focus on intersectional fairness-aware learning to rank for algorithmic hiring, part of an EU interdisciplinary project.
Advisors: Maarten de Rijke (M.deRijke@uva.nl), Andrew Yates (a.c.yates@uva.nl).
Skills: Python, PyTorch.
- 2020 – 2022 **MSc in Data Science**, *Radboud University*
Thesis: Debiasing word embeddings with respect to gender for the recruitment industry.
Advisors: Harrie Oosterhuis, Gido H. Schoenmacker.
Skills: NLP, Python, PyTorch.
- 2016 – 2020 **BSc in Computer Engineering**, *Politehnica University of Timisoara*
Thesis: Android Application - Chatbot for Travelling.
Advisor: Marius Marcu.
Skills: OOP, NLP, Python, Django, Xamarin, C#.

Experience

- Mar 2022 – **Data Scientist Intern**, *DPG Media Netherlands*
Sep 2022 Researched debiasing techniques of word embeddings for the recruitment industry.
Skills: NLP, Python, PyTorch.
- Sep 2021 – **Machine Learning Researcher Intern**, *ASM Pacific Technology Netherlands*
Jan 2022 Researched machine learning techniques for depth estimation from focal stacks for the microdevices industry.
Skills: Computer Vision, Depth Estimation, Python, PyTorch.
- Jan 2020 – **Machine Learning Researcher Intern**, *Continental Automotive Romania*
Sep 2021 Researched machine learning techniques for object detection and depth estimation from stereo and monocular images in the context of autonomous driving.
Skills: Computer Vision, Depth Estimation, Object Detection, Python, PyTorch.
- Oct 2018 – **Software Developer Intern**, *Hella Romania*
Jan 2020 Developed internal tools for processing car sensor data using C# and Java programming languages for the automotive industry.
Skills: C#, Java.
- Jul 2018 – **Technical Support Engineer Intern**, *Microsoft Romania*
Oct 2018 Developed a mobile application for a second-hand shop using Microsoft Power Apps.
Skills: Microsoft Power Apps.

Publications

Full list: Google Scholar

Rus, Clara, Jeffrey Luppens, et al. (2022). "Closing the gender wage gap: Adversarial fairness in job recommendation". In: *HR@ RecSys*.

Rus, Clara, Maarten de Rijke, and Andrew Yates (2023). "Counterfactual Representations for Intersectional Fair Ranking in Recruitment." In: *HR@ RecSys*.

Rus, Clara, Gabrielle Poerwawinata, et al. (2024). "AnnoRank: A Comprehensive Web-Based Framework for Collecting Annotations and Assessing Rankings". In: *Proceedings of the 33rd ACM International Conference on Information and Knowledge Management*, pp. 5400–5404.

Rus, Clara, Andrew Yates, and Maarten de Rijke (2024). "A Study of Pre-processing Fairness Intervention Methods for Ranking People". In: *European Conference on Information Retrieval*. Springer, pp. 336–350.

Honig, Sander et al. (2025). "A reproducibility study of "User-item fairness tradeoffs in recommendations"". In: *Transactions on Machine Learning Research*.

Xu, Chen et al. (2025). "FairDiverse: A Comprehensive Toolkit for Fairness-and Diversity-aware Information Retrieval". In: *Proceedings of the 48th International ACM SIGIR Conference on Research and Development in Information Retrieval*, pp. 3540–3550.

Teaching

2025 **Tutorial on Fairness in Information Retrieval from an Economic Perspective**, SIGIR'25, [LINK](#)

2025 **Recommender Systems**, *MSc in Artificial Intelligence*, University of Amsterdam
Invited guest lecture on fairness in recsys

2025 **Invited Speaker at Annie Romein-Verschoor lecture on gender and AI**

2025 **Fairness, Accountability, Confidentiality and Transparency in AI**, *MSc in Artificial Intelligence*, University of Amsterdam

Teaching Assistant supervising three groups of students in conducting reproducibility projects which led to submissions at the TMLR - MLRC.

2024 – 2025 **30h Course on Fairness in AI Recruitment**, *Fairness and Intersectional Non-Discrimination in Human Recommendation (FINDHR) European Project*
Lecture on Fairness in Rankings

2023 – 2025 **Information Retrieval 1**, *MSc in Artificial Intelligence*, University of Amsterdam
Teaching Assistant. Designing the Lecture on Fairness in Rankings.

2023 – 2024 **Supervising MSc in Artificial Intelligence**, *University of Amsterdam*
Thesis Topic: Ensuring Sustainable Futures: How Foundation Models Transform ESG Auditing

Community Service

Organizer: The 15th European Summer School on Information Retrieval

Reviewing: SIGIR, ECIR

PC Member: Recsys in HR'24/25, ICTIR'23, EWAF'24, AIMMES'24/25, SIGIR'25, WSDM'26, ECIR'26

Additional Education

2024 **University of Amsterdam**, *The 15th European Summer School on Information Retrieval (ESSIR)*

2023 **University of Ljubljana**, *The 1st European Summer School on Artificial Intelligence (ESSAI)*

Awards

2025 **NTCIR18**, *Japan*, Tokyo, Best poster presentation at the FairWeb-2 NTCIR18.

2020 **Microsoft AI for Girls**, *Timisoara*, Romania, Collaborated on solving the task of recognizing text information from photos (1st place).

2019 **Startup Weekend**, *Timisoara*, Romania, Collaborated on designing a business plan and developing an MVP for a dog matching app (3rd place).

Extracurricular Activities

2025 **Technical Implementation Informed Guidelines**, *FINDHR Horizon EU Project* [LINK](#), Collaborating on writing a report that provides guidelines for the design and use of a software framework designed to support trustworthy recruitment systems.

2025 **Software Development Guide**, *FINDHR Horizon EU Project* [LINK](#), Coordinator of a guideline report for designing trustworthy recruitment systems.

2024 **NTCIR-18 FairWeb-2 Task**, [LINK](#), Collaborated on solving the task of improving the fairness of retrieved web pages.

2018 – 2019 **UPT Race Team**, *Member*, Timisoara, Romania, Member in the Arduino Team of a student organization aiming to build a race car in order to participate in Formula Student's competitions.

2016 – 2018 **AC Club**, *Member*, Timisoara, Romania, Member of student organization. Participating in organizing computer science and social events for students.

2016 **Interact Club**, *Board Member*, Timisoara, Romania, Board member of charitable youth organization.

Languages

Proficiency (C1): English

Intermediate (B1): German