

# Clara Rus

## Curriculum Vitae

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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.  
*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.

Xu, Chen et al. (2025). "FairDiverse: A Comprehensive Toolkit for Fair and Diverse Information Retrieval Algorithms". In: *arXiv preprint arXiv:2502.11883*.

## Teaching

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

2025 **Information Retrieval 1**, *MSc in Artificial Intelligence*, University of Amsterdam  
Teaching Assistant

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 MLRC challenge.

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

2024 **Information Retrieval 1**, *MSc in Artificial Intelligence*, University of Amsterdam  
Teaching Assistant

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

2023 **Information Retrieval 1**, *MSc in Artificial Intelligence*, University of Amsterdam  
Designing the Lecture on Fairness in Rankings

## Community Service

Organizer: The 15th European Summer School on Information Retrieval

Reviewing: SIGIR, ECIR

PC Member: Recsys in HR'24-workshop, ICTIR'23, EWAF'24, AIMMES'24, SIGIR'25

## 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

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

2024 **NTCIR-18 FairWeb-2 Task**, Collaborated on solving the task of improving the fairness of retrieved documents.

2024 **Technical Implementation Informed Guidelines**, *FINDHR Horizon EU Project* ([LINK](#)), Collaborating on writing a report about guidelines of using a framework designed for trustworthy recruitment systems.

2024 **Trustworthy Software Module**, *FINDHR Horizon EU Project* ([LINK](#)), Collaborating on designing and implementing a trustworthy software module.

2023 **Software Development Guide**, *FINDHR Horizon EU Project* ([LINK](#)), Coordinator of a guideline report for designing trustworthy recruitment systems.

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

Native: Romanian

Proficiency (C1): English

Intermediate (B1): German