

Research associate (m/f/x)

Online seit 27.11.2025 | 2025-11-27-945848 | Wissenschaftliche:r Mitarbeiter:in

Stellenbeschreibung

Faculty of Electrical Engineering and Information Technology :
Chair of Learning Technical Systems

In order to fill a **fixed-term position in full-time (39.83 Std./Woche)** at the earliest possible date, we are looking for 1

Research associate (m/f/x)

The group conducts core research in artificial intelligence and machine learning, with a primary focus on online decision-making under uncertainty. Our work spans areas such as (inverse, deep, and causal) reinforcement learning, multi-armed bandits, and learning in multi-agent systems involving cooperation, competition, and coordination. We are particularly interested in how intelligent systems can adapt across changing domains and recover from suboptimal or biased decisions through principled approaches to domain adaptation and algorithmic recourse. While our methods are generic and applicable across diverse fields—including medicine, education, and finance—we primarily apply them to engineering and technical systems, such as the Internet of Things, next-generation communication networks, and robotics.

The researcher will work on the development of robust and efficient collective algorithmic recourse methods to enhance the resilience of mission-critical networked systems. The project lies at the intersection of machine learning, optimization, and multi-agent systems, addressing challenges arising from resource volatility and uncertainty in dynamic environments. The work will include both theoretical analysis—covering efficiency, scalability, and convergence—as well as the application of the proposed methods to optimize networked systems.

Your tasks:

- The main task is to conduct **high-quality and independent research** in the area of **collective algorithmic recourse**, with a particular focus on its **application to networked systems**, and to **publish the results in leading scientific venues**.

Anforderungsprofil & Qualifikationen

Your profile:

- An excellent, recently completed **Ph.D. or M.Sc. degree** with a strong publication record in **Computer Science (Machine Learning and Artificial Intelligence)**, **Mathematics** (pure or applied, including Operations Research), **Electrical Engineering** (Signal Processing, Information Theory), or related fields such as **Theoretical Physics**.
- A **solid mathematical background**.
- **Strong programming skills**.
- **Excellent command of English**, both written and spoken.

We offer:

We offer a **cooperative and friendly working environment** that encourages collaboration, creativity, and professional growth. The position is part of a **DFG Priority Programme (SPP)**, which provides excellent opportunities for **scientific exchange and networking**. The successful candidate will have the chance to **participate in project meetings, workshops, and joint events** within the programme to further develop their expertise and build research connections.

Further information:

The position is salaried and based on the collective agreement of the Länder (TV-L). If the personal and collective agreement requirements are met, the employee will receive pay grade E13 TV-L.

Further information can be found at <https://oeffentlicher-dienst.info/> (in German).

The place of work is Ruhr University Bochum.

If the position is funded by third-party funds the employee has no teaching obligation.

RUB sees itself as a university with an international presence. The campus languages are German and English. Competence in at least one of the two languages and the willingness to learn the other are a prerequisite. RUB provides corresponding free courses for employees.

German language courses are offered by the University Language Center (ZFA) in the field of German as a Foreign Language (DaF).

<https://www.daf.ruhr-uni-bochum.de/sbgk/index.html.en>

The Staff Council has the right to participate in all selection interviews. At the request of a

candidate (m/f/x), it will ensure its participation in the entire procedure. Please contact wpr@rub.de.

The Ruhr-Universität Bochum is one of Germany's leading research universities, addressing the whole range of academic disciplines. A highly dynamic setting enables researchers and students to work across the traditional boundaries of academic subjects and faculties. To create knowledge networks within and beyond the university is Ruhr-Universität Bochum's declared aim.

The Ruhr-Universität Bochum stands for diversity and equal opportunities. For this reason, we favour a working environment composed of heterogeneous teams, and seek to promote the careers of individuals who are underrepresented in our respective professional areas. The Ruhr-Universität Bochum expressly requests job applications from women. In areas in which they are underrepresented they will be given preference in the case of equivalent qualifications with male candidates. Applications from individuals with disabilities are most welcome.

Contact persons for further information:

Prof. Dr. Setareh Maghsudi Tel.: +49 234 32 18145

Travel costs, accommodation costs and loss of earnings or other application costs for job interviews can unfortunately not be reimbursed.

We look forward to receiving your application via our **online application portal by 2025-12-15**. Please make sure to mention the reference number ANR 5157.

Vorteile für Mitarbeitende

- Vergünstigtes Jobticket
- Arbeitsplatz in lebendiger Metropolregion

Stellenmerkmale

Beschäftigungsart	Wissenschaftliche:r Mitarbeiter:in
Beschäftigungsumfang	Vollzeit (befristet)
Home Office	Nein

Bewerbungslink

<https://jobs.ruhr-uni-bochum.de/jobposting/0955dcb1fabab4848e3b13201429766b8fa0d8b9?ref=stellenwerk>

Kontaktdaten

Firma/Hochschule

Ruhr-Universität Bochum


Anschrift

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Webseite

<https://uni.ruhr-uni-bochum.de/de/stellenangebote>