



Being Europe's densest university landscape, the metropolis Ruhr offers attractive career opportunities for excellent scientists and scholars from any part of the world. In 2021, the Ruhr-Universität Bochum, TU Dortmund University and the University of Duisburg-Essen founded the Research Alliance Ruhr to bundle their top international research on grand challenges of humankind. Four research centers and a college will be established in the next three years. This is just the latest chapter of our long-standing cooperation as University Alliance Ruhr (UA Ruhr), a community of 1,300 researchers and 120,000 students in the center of Germany.

As part of the Research Alliance Ruhr, the **Research Center Trustworthy Data Science and Security** is bringing the expertise of its universities together to bridge the gaps between Psychology & Social Sciences, Artificial Intelligence & Machine Learning, Data Science & Statistical Learning, and Cybersecurity & Privacy. The following **nine interdisciplinary PhD positions** are to be filled as early as possible:

3 PhD: Data Science & Cybersecurity

- Reliability Guarantees for Artificial Intelligence
- Adversarials and Verification of Deep Anomaly Detectors
- Balancing Privacy Enhancing Technologies and Data Governance

3 PhD: Psychology & Data Science

- Human Understanding of Machines and Algorithms
- Transparency and Accountability of Machine Learning Systems
- Data Infrastructures for Individual and Community Empowerment

3 PhD positions: Mathematics & Trust

- Statistical Model Checking for Learning Systems
- Uncertainty Quantification in Machine Learning
- Formal Verification in Reinforcement Learning

Your Qualification

- Excellent degree (Master of Science) in psychology, statistics, computer science, mathematics, or similar programs
- High degree of creativity, commitment, analytical competence, and interdisciplinary teamwork.
- High proficiency in English, both written and spoken for your scientific publications and presentations.

What we offer

We work in a multidisciplinary team on collaborative research projects jointly supervised by leading international experts from different domains. We aim at both theoretical research as well as practical applications in close collaboration with academic and industrial partners. The positions are embedded in a creative, attractive, and internationally renowned research environment. With your research, you will play a primary role in the development of our new Research Center and outreach with trustworthy technology to the general public. During your PhD, participation in international conferences and voluntary exchange programs are highly encouraged. Our international network of researchers and industry partners ensures a seamless transition into your next career step. A balanced and family-friendly work-life relationship is important to us, thus we offer options for flexible working times or part-time remote home-office.

Research Alliance Ruhr

The Research Alliance Ruhr is a cooperation of the three major universities in the Ruhr region, which has been initiated by the Ruhr Conference. The four research centers will focus on "One Health - from Molecules to Systems," "Chemical Sciences and Sustainability," "Trustworthy Data Science and Security," and "Future Energy Materials and Systems. In addition, a "College for Social Sciences and Humanities" is being established.

Your Application

If you are interested in the positions, please send your application in a single PDF file to:

open-positions@rc-trust.ai

Please provide the usual documents: motivation letter, CV, and copies of your certificates.

Further information about the Research Center can be found at:

www.rc-trust.ai

There you will also find the advertisements for other open positions.

Career Opportunities

Our Research Center will hire 12 research professors in the next few years and offer numerous positions for research assistants and research group leaders. Join us now to create trustworthy innovations for the digital world of tomorrow in Europe's largest metropolitan region.