

Faculty of Mathematics and Natural Sciences

Professorship in Machine Learning (W2) (f/m/d)

UNIVERSITY OF COLOGNE



The University of Cologne is one of the oldest and largest universities in Germany. With its six Faculties covering a broad spectrum of disciplines and its internationally outstanding research profile areas, it enjoys an excellent reputation for its academic achievements and high standards of undergraduate and graduate education.

YOUR TASKS

In the context of its expansion of its Division of Computer Science, the Department of Mathematics and Computer Science would like to extend its research portfolio in the field of machine learning. We invite applicants focused on advancing the core theories, algorithms, and principles of machine learning. We are specifically looking for a person that explores fundamental methods, beyond just applying these techniques to specific domains and applications. Possible research topics include, but are not limited to deep learning, foundation models, reinforcement learning, representation learning, generative models, causal reasoning, learning theory, transfer learning, probabilistic methods, data-centric methods, evaluation methodology, neurosymbolic AI, optimization, and technical aspects of machine learning fairness, safety, and privacy.

YOUR PROFILE

We are looking for applicants with an outstanding research and publication track record in the field of machine learning. Candidates should demonstrate excellent teaching ability in the field of machine learning or data science. We expect collaboration with ongoing research initiatives at the Division of Computer Science and the university, such as the Center for Data and Simulation Science (CDS). Experience with acquisition of third-party funding, leadership, and community engagement is a plus. Candidates are expected to foster partnerships with interdisciplinary researchers, empowering them to integrate your innovative methods into their domain (e.g. medicine, natural sciences). Applicants should actively contribute to the growth of the Division of Computer Science and will have the opportunity to shape its development. Teaching responsibilities include participation in related study programs. Participation in the academic self-organization is expected.

OUR OFFER

The University of Cologne provides a stimulating academic environment with a wide range of career development opportunities. High-performance computing capabilities are available at the IT Center Cologne (ITCC). We provide support services for dual career couples and family-friendly working conditions

The position is available at the earliest possible date. Formal requirements are detailed in Section 36 of the Higher Education Act of North Rhine-Westphalia (Hochschulgesetz – HG NRW). As a rule, the teaching load comprises nine semester hours per week (i.e., two hours per week is one 90-minute course per semester).

The University of Cologne promotes equal opportunities and diversity. Women will be considered preferentially in accordance with the Equal Opportunities Act of North Rhine-Westphalia (Landesgleichstellungsgesetz – LGG NRW). We also expressly welcome applications from all suitable candidates regardless of their gender, nationality, ethnic and social origin, religion, disability, age, sexual orientation and identity.

Please submit your application, including research and teaching plan, without a application photo via the University of Cologne's Academic Job Portal (<u>https://professorships.uni-koeln.de</u>) by July 31, 2025. Your application should be addressed to the Dean of the Faculty of Mathematics and Natural Sciences.

For more information, contact Professor Aleksandar Bojchevski (<u>a.bojchevski@uni-koeln.de</u>), spokesperson of the selection committee.

