





The Department of Computer Science at TU Dortmund University is offering the following position (starting at the earliest possible date):

Professorship (W1) with W2 tenure track Automated machine learning and optimization

The professorship is part of the Lamarr Institute for Machine Learning and Artificial Intelligence

Our profile

Comprising 17 departments in the natural and engineering sciences as well as the humanities and social sciences, TU Dortmund University is a dynamic university with a strong profile in research, teaching, promotion of young scientists and transfer.

The Department of Computer Science at TU Dortmund University is one of the largest in Germany and has particular strengths in research. Among similar institutions, it is distinguished by a combination of fundamental research on formal methods with the development of practical applications. Research focuses on Algorithmics, Data Science, Cyber-Physical Systems and Software and Service Engineering. The Lamarr Institute, as a leading international center for Machine Learning, focuses on the value-based research and development of high-performance, trustworthy, and resource-efficient applications of Machine Learning and Artificial Intelligence (AI). It establishes internationally competitive research that sustainably strengthens Germany and Europe as leading locations for research, education, and technology transfer in AI. Along the central research paradigm of "Triangular AI" (AI3), Lamarr scientists are laying the foundations for the next generation of Artificial Intelligence, which uses data, knowledge and context of intelligent systems on an equal footing.

Profile of the professorship

You represent the area of automated machine learning (AutoML) and optimization in research and further develop this with international visibility. The professorship is part of the Lamarr Institute and aligns in research, teaching, and transfer with the five core and five interdisciplinary research areas of the Institute. There, you will establish a new expert group on machine learning equipped with two scientific staff positions for both scientific and application-oriented ML research at TU Dortmund University. In doing so, you participate in a vivid research network and cooperations within and beyond the Lamarr Institute, TU Dortmund University, and its AI ecosystem (https://ai.tu-dortmund.de/). You are committed to applying for third-party funding as well as promoting early career researchers, and you participate appropriately in the teaching activities of the department.

The appointment is initially for a period of three years as a temporary civil servant. In the course of the third year, this status will be reviewed and may be extended for a further three years depending on performance. At the end of this six-year assistant professorship at the latest, the tenure track will lead to continued employment as a tenured W2 professor, provided that the necessary aptitude, competence and academic performance have been demonstrated and that the legal requirements pertaining to Section 38 of the North Rhine-Westphalia Higher Education Act (Gesetz über die Hochschulen des Landes Nordrhein-Westfalen, HG NRW) are met. The teaching load of the assistant professorship is four hours per week in each of the first three years. In the case of a positive review, it will increase to five hours per week in each of the last three years.

Your Qualifications

You will have obtained an excellent doctorate and already demonstrated initial experience in the dissemination of your research in the field of the professorship through international publications in recognized peer-reviewed venues. Possible research fields may include but are not limited to automated selection of model families, hyperparameter optimization, fine-tuning of models, evaluation of models, automated optimization of neural network topologies, especially in deep learning, reinforcement learning, explainable AI and large language models. The research focus can be both on mathematical modeling and the application of AutoML in various domains. Experience in obtaining competitively awarded external funding /participation in research projects is desirable. Additionally, you will have the potential for teaching excellence. Social and leadership skills and the willingness to participate in academic self-administration will complete your profile. Moreover, the recruitment requirements in Section 36 and 37 HG NRW apply.

Attractive environment

We offer an excellent academic environment and attractive cooperation opportunities with renowned international, national, and regional partners. The metropolitan Ruhr Area with the University Alliance Ruhr (UA Ruhr) guarantees short distances to a diversity of partners from science and industry. With our Dual Career Service, we support your partner in finding professional opportunities in the region, if desired. We will be happy to provide information about housing and living in Dortmund and help you find childcare options. If you are coming to us from abroad, our Welcome Service will support you upon your arrival in Germany.

Diversity welcome

A central goal of TU Dortmund University is to promote diversity and equal opportunities. We strive to significantly increase the percentage of women in research and teaching and therefore welcome applications from female academics. We give preference to severely disabled applicants if their qualifications meet the requirements. We support the compatibility of family and career and promote gender equality in academia and research.

Your application

If you are interested in the position, please submit your application by **29.05.2024** via our application portal.

Details on the application process and the preparation of application documents can be found here: **berufung.tudortmund.de/en/application**

Questions will be answered by the Dean of the Department of Computer Science: Professor Dr.-Ing. Gernot A. Fink tel: +49 231/755-6151 or dekan.cs@tu-dortmund.de

Further information about the Lamarr-Institut and the Department of Computer Science can be found at lamarr-institute.org and at cs.tu-dortmund.de

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