

Job requirements

Professorship for Data Driven Modelling

Application deadline: Mar 05, 2025

The professorship is based in the **Institute for Data Science, Engineering, and Analytics (IDE+A)**.

Starting date: **as soon as possible**

The general legal requirements in compliance with paragraph 36 of the North Rhine-Westphalia Higher Education Act (Hochschulgesetz – HG) are as follows:

1. A university degree
2. Proven track record of experience in teaching (if not available, teaching within the course of the first year will be evaluated in the context of a contractual probation period)
3. Particular proficiency in scientific work, usually demonstrated by the quality of the doctorate
4. A strong track record in the application or development of research findings and methods, gained during a minimum of five years of professional employment in a relevant field – at least three years of these five years must have been outside of a university environment

Professional, didactic and methodical competencies:

Applicants will have completed a university degree, preferably in psychology, and hold a doctorate. They will have at least five years of relevant professional experience, with at least three years outside the university sector.

Professional Competence

Applicants will have practical experience in data-driven modelling, proven by various data science projects, ideally in different application contexts. This also includes experience in team processes and collaborations with stakeholders and sound knowledge of programming languages and libraries as well as tools for data analysis.

For the 'Data Driven Modelling' professorship, we are looking for a committed personality with strong specialist skills who will consistently represent the topic in the faculty's Bachelor's and Master's degree programs and in research. Applicants should have sound knowledge and practical experience in the areas of data analysis, data visualization and mathematical modelling in order to represent these in teaching.

Research competence

We would like applicants to submit subject-related publications, presentations and/or projects on applied scientific research in the field of data-driven modelling. Due to the practical nature of the computer science degree programs, research skills geared towards concrete and practically usable innovations in data-driven modelling are an advantage.

Experience in the acquisition and realization of research projects is desirable. The applicant will be able to coherently demonstrate how the past and planned research activities contribute to further enhancing the research profile of the Faculty of Computer Science and Engineering and TH Köln as a whole.

International competence

The applicant will have experience in establishing international co-operations and an existing international network; contacts in communities are an advantage. We expect the applicant to have a very good command of English, as teaching and project supervision will also take place in English. If you are not a native speaker, a very good knowledge of German is required, as the Bachelor's degree program is taught exclusively in German.

Questions on the recruitment process to:

Cornelia Luwala

T: + 49 221-8275- 3061

E: cornelia.luwala@th-koeln.de

Gustav-Heinemann-Ufer 54

50968 Köln

Position-related questions to:

Prof. Dr. Dietlind Zühlke

T: +49 2261-8196-6236

E: dietlind.zuehlke@th-koeln.de

Didactic competence/communication skills

The TH Köln is committed to high-quality teaching. The faculty is planning to reorganize mathematics teaching with a stronger focus on application and modern teaching methods. At the same time, the Bachelor's degree programs in the Computer Science teaching unit are increasingly being converted to a project-based structure. An orientation towards research-based learning is also part of the self-image of the Faculty of Computer Science and Engineering. We therefore expect the applicant to be prepared to provide competence-orientated teaching and to create activating learning arrangements in a practice-oriented learning environment.

Theory and practice should be appropriately linked in order to initiate learning processes and facilitate learning success. The applicant should have a high level of pedagogical aptitude and motivation in teaching practical and scientific knowledge and theories. Teaching experience at universities or further education institutions is desirable. Experience in dealing with learning processes and the ability to facilitate learning success is advantageous. You would like to work with us to modernize the teaching of mathematics and develop it further to meet the needs of our students.

The applicant will be able to structure complex topics in a way that is appropriate to the learning objectives, target group and situation for undergraduate students and convey them at an appropriate level of abstraction. This also means that you are able and interested in developing complex content from real projects with first-year students. You have the patience and motivation to support students in the often challenging math-based subjects. Applicants are interested in innovative teaching concepts and are prepared to research these and incorporate them into their own teaching. The development and supervision of project work and theses are expressly desired. An engagement with concepts of data literacy and the role of digitalization in society is desirable.

Management competence

The applicant will have very good planning, organizational and leadership skills, which can be demonstrated, for example, by taking on significant team-oriented leadership roles in companies, larger design or research projects and / or taking on management functions in academic self-administration. Motivation, communication and conflict resolution skills in dealing with colleagues and employees are a matter of course. We would like you to bring your own forward-looking perspective to the development of the teaching and research area of 'Data-driven modelling'. In addition, we are looking for interest and enthusiasm in the further development of study programs and self-administration.

Social skills

The applicant will have the ability to work in a team, is motivated, able to deal with conflict and cooperate with the staff of the institute and external organizations. The applicant will have the ability to establish and maintain information and contact networks. In the Faculty of Computer Science and Engineering, special emphasis is placed on intensive and personal support for both students and staff. Expertise and the ability to initiate and manage international and interdisciplinary cooperation projects are desirable. A sensitive and reflective approach to cultural diversity and the diversity of our students and staff is a prerequisite.

Other skills

The applicant should be interested in collaborating with colleagues and external organisations beyond the boundaries of their own specialist area. Applicants recognize the importance of digitalization as an innovative driver in a wide range of application areas and industries and the resulting need for interdisciplinary cooperation. Cooperation with neighbouring disciplines in research and teaching is expressly desired. It is particularly advantageous if applicants are able to assess the potential of inter- and transdisciplinary cooperation in order to make effective and innovative contributions to global future topics.

With the advertisement of this position and the publication of the requirement profile, TH Köln – University of Applied Sciences specifies which competencies are necessary to

Questions on the recruitment process to:

Cornelia Luwala

T: + 49 221-8275- 3061

E: cornelia.luwala@th-koeln.de

Gustav-Heinemann-Ufer 54

50968 Köln

Position-related questions to:

Prof. Dr. Dietlind Zühlke

T: +49 2261-8196-6236

E: dietlind.zuehlke@th-koeln.de

successfully fulfill the duties of the professorship. Depending on the focus of the professorship, these competencies are weighted and checked in the selection procedure. Pre-selection is based on the written application documents submitted by applicants. The necessary competencies of the shortlisted candidates will be assessed in an application procedure that includes a lecture, a research presentation and a structured interview. If applicants are shortlisted and invited to a personal interview, they will be asked to submit a written teaching and research concept in advance. Short-listed candidates will receive more detailed information concerning the lecture, the research presentation and the structured interview with their invitation.

Please take note of the [application information](#) at the end of this list of requirements for the position.

Additional information

Place of residence

You are expected to move/relocate to the city in which your campus is located/situated or its region.

Remuneration

Professors are remunerated in accordance with the W2 remuneration scheme (www.lbv.nrw.de: the remuneration scale for North Rhine-Westphalia as well as information on the family supplement are available on the website of the North Rhine-Westphalia State Office for Salaries and Pensions – LBV NRW – at). In addition to the family supplement, the remuneration provisions make allowance for other benefits (performance-related benefits), in particular benefits related to the appointment as well as benefits granted on the grounds of outstanding contributions and/or for securing third-party funding for research purposes. The Provisions on Performance-Related Benefits at Universities in North Rhine-Westphalia are in accordance with the law (Hochschul-Leistungsbezügeverordnung – HLeistBVO) of December 17, 2004. Additionally, TH Köln – University of Applied Sciences has introduced individual regulations in its guidelines on W2-remuneration. Detailed information on the W2-remuneration bracket is available here: th-koeln.de/besoldung

Employment as a civil servant or as a non-civil servant

Professors may only be employed as tenured German civil servants if they hold a full-time position and comply with all legal provisions (e.g. being younger than 50 years old). The possibility of becoming a tenured German civil servant is always determined on an individual basis, and candidates should therefore contact the head of the division for lecturers and assistants in the human resources department (Ms. Cornelia Luwala / Phone: +49 221-8275-3061 / Email: cornelia.luwala@th-koeln.de). When employed under non-civil-servant conditions, professors will be remunerated in accordance with W2 gross remuneration. In contrast to tenured civil servant contracts, professors employed under such provisions are required to pay social security contributions.

During employment, part-time employment may be granted upon request, e.g. for familial reasons, provided that this does not interfere with fulfilling the duties of the position.

Additional employment

Full-time professorship: additional employment of up to eight hours per week may be authorized in compliance with the legal regulations for North Rhine-Westphalia (thus permitting work in positions of practical relevance). If you work on a freelance basis with your own office, this will be subject to specific conditions as outlined in the legal stipulations concerning additional employment for university personnel.

Part-time professorship: The execution of other activities not part of the professorship is subject to the regulations governing part-time employment.

Questions on the recruitment process to:

Cornelia Luwala

T: + 49 221-8275- 3061

E: cornelia.luwala@th-koeln.de

Gustav-Heinemann-Ufer 54

50968 Köln

Position-related questions to:

Prof. Dr. Dietlind Zühlke

T: +49 2261-8196-6236

E: dietlind.zuehlke@th-koeln.de

If your work as a professor is less than 50 %, then the legal stipulations on additional employment do not apply.

Application information

Please submit your application materials via our application management system. Return to the [job advertisement](#) and click here:

[Apply here](#)

In our application management system, we ask you to submit information relevant for the processing of your application and to upload the following documents (maximum file size 10 MB per file, optimum processing with a maximum of 5 MB):

- cover letter
- photo (optional)
- curriculum vitae including a list of publications and an overview of courses held
Please list your periods of work experience (inside and outside of the university contexts) in tabular form and provide the month and year of each period. In the case of parallel employment, please indicate the percentage of work time spent at the given institution, if possible. Please list work experience that was gained after receiving the first university degree.
- certificates (max. 5 files)
 - copies of university diplomas/certificates
 - job reference letters and/or performance reviews to provide evidence for periods of work experience gained from the first university degree onwards
 - certified translations in German or English of foreign certificates
- other documents
 - e.g. a list of publications, overview of the courses held, evaluations

Questions on the recruitment process to:

Cornelia Luwala

T: + 49 221-8275- 3061

E: cornelia.luwala@th-koeln.de

Gustav-Heinemann-Ufer 54

50968 Köln

Position-related questions to:

Prof. Dr. Dietlind Zühlke

T: +49 2261-8196-6236

E: dietlind.zuehlke@th-koeln.de