

A nighttime photograph of the Clock Tower (Uhrenturm) in Graz, Austria. The tower is illuminated with warm yellow lights, showing its wooden structure and two large clock faces. The background shows the city of Graz with its lights and hills under a dark sky.

PROFESSORSHIP DATA MANAGEMENT

INFORMATION FOR APPLICANTS
2022



WHO WE



Graz University of Technology is the oldest science and technology research and educational institute in Austria. For over 200 years, it has been an important university in the international research and education network of science. The university achieves top performances in its five Fields of Expertise and boasts intensive collaboration with other national and international research and educational establishments and with business and industry worldwide.



ARE.



The Department of Computer Science and Biomedical Engineering is an internationally highly ranked department committed to excellence in research and teaching. The research at the department covers a broad spectrum of topics that are reflected in our main research areas Biomedical Engineering, Security and Safety, Artificial Intelligence, and Visual Computing. We are proud of our outstanding basic and applied research and encourage interdisciplinary projects. Moreover, we foster a close dialogue with industry and encourage and support the creation of spin-off companies.



JOB DESCRIPTION

We are looking for a candidate with an excellent academic record to represent the area of Data Management in research and teaching, and to complement the research strengths of other teams in the department.

We are looking for candidates with demonstrated scientific expertise in the areas of data management, data engineering, and optimally including data-centric machine learning to represent them in both research and teaching and to complement our existing team.

The successful candidate will complement the existing strengths in the department, will build an internationally visible group, will be an engaged teacher in the Computer Science programs at the Bachelor's, Master's, and PhD level, and will actively participate in academic self-administration. A strong interest in applied, systems-oriented research is beneficial.

Ideally, candidates will bring experience in several of the following topics:

- Database Technologies
(physical design, query processing and optimization, transaction processing).
- Multimodal Data Management
(structured/semi-structured, documents, graphs, time series, video/images).
- Data Engineering
(data integration, data cleaning, data validation, data provenance/versioning).
- Large-scale Data Management
(distributed storage, data-parallel computation, cloud computing).
- Machine Learning Systems
(systems and platforms for data-centric ML, scalable ML training and serving).
- High-Performance Computing
(numerical computation, scheduling, heterogeneous hardware, simulations).



REQUIRE- MENTS

- A completed university education with a doctoral degree (PhD) in a relevant field.
- A relevant habilitation (*venia docendi*) or an equivalent qualification.
- Excellent scientific achievements.
- Excellent didactic and pedagogical skills.
- Management and leadership abilities.
- Excellent command of English and command of German or the willingness to acquire it.

We also value

- International experience and integration in the international research community.
- Experience with acquisition of research grants and/or industrial collaboration.

We expect the successful candidate to transfer her or his residence to the area of Graz.

OUR OFFER

The advertised position is a tenured full professorship with a competitive salary. The university will provide funding for one or more PhD students and the necessary research equipment.

Graz University of Technology provides excellent working conditions in a vibrant scientific community, combined with the outstanding living quality of the Graz area. We also support your partner's career development through a dual career office and assist with the relocation process. A combination of national and European agencies provides an excellent funding landscape and ample opportunities exist to collaborate with industry.

EQUAL OPPORTUNITY EMPLOYER

Graz University of Technology aims to increase the proportion of women, in particular in management and academic staff, and therefore qualified female applicants are explicitly encouraged to apply. Preference will be given to women if applicants are equally qualified.

Graz University of Technology actively promotes diversity and equal opportunities. Applicants are not to be discriminated against in personnel selection procedures on the grounds of gender, ethnicity, religion or ideology, age, sexual orientation (Anti-discrimination).

People with disabilities and who have the relevant qualifications are expressly invited to apply.



DEPARTMENT OF COMPUTER SCIENCE & BIOMEDICAL ENGINEERING

Our department ranks in the **European top 30** for Computer Science and Biomedical Engineering, and is home to the university's most highly cited researchers. The department is among the top departments globally for selected areas. **Three ERC grants** speak for the research excellence of the department, and we have a broad portfolio of research grants in both basic and applied research.

Through research and teaching, the department is a driver of the Styrian economy. Well educated graduates and a close cooperation between the department and its **industrial partners** contribute to the growth of the local industry, the arrival of new companies, and a number of **successful startups**. Our research has motivated companies such as Microsoft, Amazon, and SGS to establish subsidiaries in Graz.

The university encourages startups, and a large proportion of existing startups were started by our students.

For our students, we offer **study programs at all levels** including bachelor's, master's and PhD levels. The department teaches 4700 students overall, almost one-third of our university's student. All master's programs are taught in English.

One of our greatest strengths is an atmosphere of mutual respect and collaboration between faculty, staff, and students.

INSTITUTE OF INTERACTIVE SYSTEMS AND DATA SCIENCE

The professorship will be part of the Institute for Interactive Systems and Data Science (ISDS, isds.tugraz.at). The Institute combines research on cutting-edge technology for interactive systems with the collection, storage, visualization, and analysis of data. With >100 researchers and 15 research groups, the institute bridges the two research areas, and provides high-quality teaching.

Vision

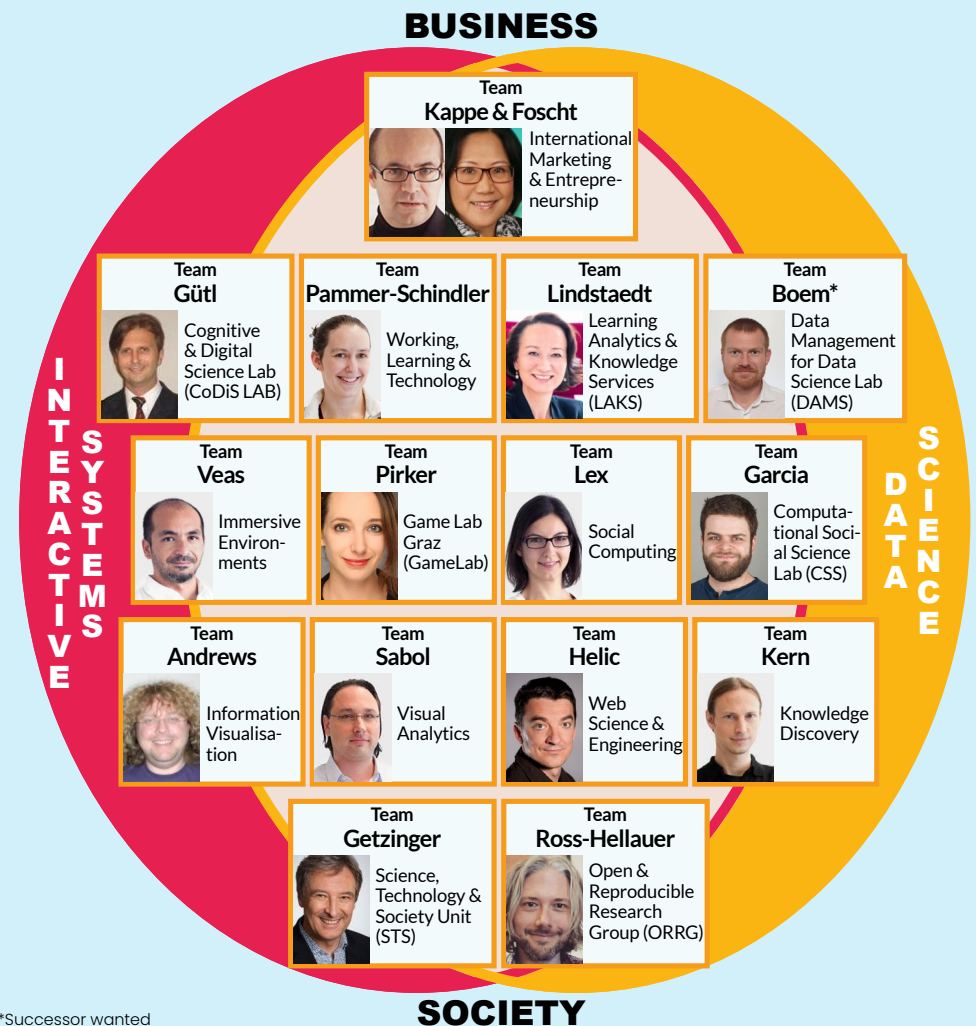
The institute unites research on all aspects of Artificial Intelligence (AI) to make systems interactive and adaptive to humans based on data, and to support humans to interactively create insights from data.

Research

The field of Interactive Systems deals with a wide range of computer systems characterized by a high degree of interaction between humans and computers. The research focuses on advanced visualization methods and smart interfaces for multimodal input and control. On the back-end side, research on information platforms, especially web and gaming technologies, forms the basis for advanced and large-scale systems. The field of Data Science comprises both large-scale, distributed data management and advanced data analytics to extract valuable insights for the social sciences, policy, business, and industry.

Our research utilizes and advances Artificial Intelligence approaches such as Machine Learning and Natural Language Processing, as well as federated learning and data management for AI systems. 16 research groups cover a wide range of topics such as Immersive Environments, Game Development, EduTech, Network Science, Computational Social Sciences, ML Systems and large-scale data. Orthogonally to these technical groups we conduct research into Data-driven Business, Open Research and Societal & Environmental Implications of technology.

The successful candidate will have the opportunity to closely collaborate with the Know-Center (Austria's Research Center for Data-driven Business and Big Data Analytics, www.know-center.at).



*Successor wanted



WHY

CULTURAL AND UNIVERSITY TOWN IN THE STYRIAN TUSCANY.

Sunny spots in cheery wine gardens, promenades in the historic city centre and narrow, atmospheric alleyways, combined with over 2,300 hours of sunshine convey a southern European flair.

UNIVERSITY TOWN SINCE 1585

Know-how from Graz goes international. Six universities with more than 16 faculties form the basis of the excellent international reputation of Graz as a research and academical location. With nearly 60.000 students of 290.000 inhabitants, Graz more than other deserves the title "student town".



GRAZ?

WHERE SCIENCE MEETS ART, CULTURE AND PASSION

Graz, the exciting city of culture, and particularly its historic city centre, offers the ideal location to stage seminars, trade fairs or conferences. It is not by chance that Graz is a UNESCO World Cultural Heritage site. The historic city centre around Schlossberg hill has been growing for centuries and became a township well worthy of admiration.

Organisers of scientific conferences in particular have appreciated Graz as a conference destination for many years. Every year, approximately 45000 conference guests make use of the historic and modern congress centres. They appreciate the city's easy accessibility, as much as its sophisticated cuisine and famous Austrian hospitality. A variety of supporting programmes and day excursions, served with Styrian delicacies and regional wines, add culinary value to any event.



Interested applicants are requested to submit the online application (csbme.tugraz.at/go/applications/datamanagement/apply) including:

- a CV (with copies of diplomas);
- a list of publications highlighting the 5 most important publications;
- a research statement describing past and planned research activities (5 pages max.);
- a teaching statement (5 pages max.) and evaluations of past teaching activities (if available); and
- names and contact information of two references.

The application will be sent to the Dean Roderick Bloem of the Department of Computer Science and Biomedical Engineering.

More information: csbme.tugraz.at/go/applications/datamanagement

Deadline: November 23, 2022

Est. Start Date: February 6-10, 2023



For further questions, please contact
Stefanie Lindstaedt (lindstaedt@tugraz.at).