

TUD Dresden University of Technology, as a University of Excellence, is one of the leading and most dynamic research institutions in the country. Founded in 1828, today it is a globally oriented, regionally anchored top university as it focuses on the grand challenges of the 21st century. It develops innovative solutions for the world's most pressing issues. In research and academic programs, the university unites the natural and engineering sciences with the humanities, social sciences and medicine. This wide range of disciplines is a special feature, facilitating interdisciplinarity and transfer of science to society. As a modern employer, it offers attractive working conditions to all employees in teaching, research, technology and administration. The goal is to promote and develop their individual abilities while empowering everyone to reach their full potential. TUD embodies a university culture that is characterized by cosmopolitanism, mutual appreciation, thriving innovation and active participation. For TUD diversity is an essential feature and a quality criterion of an excellent university. Accordingly, we welcome all applicants who would like to commit themselves, their achievements and productivity to the success of the whole institution.

As part of the German government's artificial intelligence (AI) strategy, the successful Saxon competence center **ScaDS.AI Dresden/Leipzig** (Center for Scalable Data Analytics and Artificial Intelligence) at **TUD University of Technology**, is being expanded into a leading German AI competence center for Big Data and Artificial Intelligence (AI).

For this purpose, the **Center for Interdisciplinary Digital Sciences (CIDS)** and the **Center for Scalable Data Analytics and Artificial Intelligence (ScaDS.AI Dresden)** offers a project position as

Research Associate / Software Developer (m/f/x)

(subject to personal qualification employees are remunerated according to salary group E 13 TV-L)

starting **as soon as possible**. The position is located in the Junior Research Group "AI-based Coaching of Students" led by Dr.-Ing. Claudia Loitsch and is limited until March 31, 2026. The period of employment is governed by § 2 (2) Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz - WissZeitVG).

The team is dedicated to exploring the application and effectiveness of AI-driven coaching methods within higher education. Our primary goal is to research and develop intelligent, adaptive conversational agents that provide customized learning experiences and personalized coaching support. Our AI research is application-focused, adheres to human-centered design principles, and prioritizes the diversity of learning behaviors and inclusion.

Tasks:

- collaborate on a research and development (R&D) project
- take responsibility for the specification, conception, and implementation of an AI coach chatbot, aimed at enhancing study task management, promoting self-assessment through reflective dialogs, and focusing on resource orientation
- producing scientific publications about your own research
- participate in project meetings
- engage in participative and agile development with target groups.

Requirements:

- university degree in data science, computer science, software engineering, or a related field
- experience with web development
- proficiency in Python programming
- experience in the development of conversational agents, specifically with NLP (e.g., RASA) and LLM technologies (e.g., LLaMA, LangChain)
- Proficiency in English and German (B2 level).

TUD strives to employ more women in academia and research. We therefore expressly encourage women to apply. The University is a certified family-friendly university and offers a Dual Career Service. We welcome applications from candidates with disabilities. If multiple candidates prove to be equally qualified, those with disabilities or with equivalent status pursuant to the German Social Code IX (SGB IX) will receive priority for employment.

Please submit your detailed application with the usual documents and mentioning the **job reference "w24-095"** by **April 5, 2024** (stamped arrival date of the university central mail service or the time stamp on the email server of TUD applies) to: **TU Dresden, Zentrum für Informationsdienste und Hochleistungsrechnen, Herrn Prof. Dr. W. E. Nagel, Helmholtzstr. 10, 01069 Dresden, Germany** or via the TUD SecureMail Portal <https://securemail.tu-dresden.de> by sending it as a single pdf file to scads.ai@tu-dresden.de. Please submit copies only, as your application will not be returned to you. Expenses incurred in attending interviews cannot be reimbursed.

Reference to data protection: Your data protection rights, the purpose for which your data will be processed, as well as further information about data protection is available to you on the website: <https://tu-dresden.de/karriere/datenschutzhinweis>.