

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) is being expanded into a leading German AI competence center for Big Data and Artificial Intelligence (AI).

TUD Dresden University of Technology, as a University of Excellence, is one of the leading and most dynamic research institutions in the country. 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.

At the **Center for Interdisciplinary Digital Sciences (CIDS), Department for Scalable Data Analytics and Artificial Intelligence (ScaDS.AI Dresden)**, the **Chair of Adaptive Dynamic Systems** offers a position as

Research Associate / PhD Student in FPGA Design for AI Applications (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 limited to 3 years with the option of extension. The period of employment is governed by the Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz – WissZeitVG). The position offers the chance to obtain further academic qualification (usually PhD).

The Chair of Adaptive Dynamic Systems conducts research in the fields of reconfigurable computing, domain-specific multi- and manycore architectures, networks-on-chip (NoCs), methods and algorithms for application parallelization, simulators and virtual platforms for application- and architecture exploration, hardware/software co-design and operating/runtime systems. Typical application domains are e.g. signal-/image processing, artificial intelligence and machine learning.

Tasks:

- research and development in designing and programming field programmable gate arrays (FPGAs) for accelerating artificial intelligence (AI) algorithms.
- contributing, administrating and reporting in (inter-)national research and development projects
- presenting results at international conferences
- close cooperation with academic and industrial cooperation partners

Requirements:

- excellent university degree (M.Sc., Diploma) in either computer engineering, computer science, electrical engineering or any related natural science
- very good programming skills in C, C++
- fluency in English, knowledge of German would be a plus
- high self-motivation, commitment, and flexibility as well as the ability to work in and contribute to an international team
- a strong background in one or more of the following areas: field programmable gate arrays (FPGAs), hardware description languages (e.g. VHDL or Verilog), high-level synthesis (HLS), artificial intelligence and/or machine learning

We offer you an excellent working environment in an international team with many career development possibilities.

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. 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.

Qualified candidates are requested to submit their application including a CV, a brief proposal describing their research experience and interests and an official transcript of coursework and grades by **September 3, 2025** (stamped arrival date of the university central mail service or the time stamp on the email server of TUD applies), preferably via the TUD SecureMail Portal <https://securemail.tu-dresden.de> by sending it as a single pdf file using the **reference number "ADS_25-02"** to ads@mailbox.tu-dresden.de or to: **TU Dresden, Professur für Adaptive Dynamische Systeme, Frau Prof. Dr.-Ing. Diana Göhringer, Helmholtzstr. 10, 01069 Dresden, Germany**. 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>.