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).

At the Center for Interdisciplinary Digital Sciences, the Department ScaDS.AI is offering for this purpose the position ScaDS-22.3 starting as soon as possible as a

**Research Associate** (m/f/x)
(subject to personal qualification employees are remunerated according to salary group E 13 TV-L)

limited for 3 years with the option for extension. The position entails 75 % of the full-time weekly hours. 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.

**Professional assignment:** Chair of Stochastic Analysis and Financial Mathematics (Prof. Dr. rer. nat. Martin Keller-Ressel)

**Research area:** Geometric Representation Learning

**Tasks:** Research on geometric methods and representations in machine learning, in particular with focus on hyperbolic geometry, embedding methods for graphs and networks, supervised learning in non-Euclidean settings, embedding and learning for data under hierarchical and relational constraints, theoretical guarantees and error bounds for geometric embedding methods, prediction and inference of contagion and diffusion processes in non-Euclidean geometry.

**Requirements:** very good university degree in mathematics or in computer science and closely related fields with strong theoretical/methodological focus; curiosity and strong interest in rigorous, methodical fundamental research; very good programming skills, preferable in Python; very good command of written and spoken English. Prior knowledge in linear algebra, mathematical geometry, stochastics and optimization is preferable.

Applications from women are particularly welcome. The same applies to people with disabilities.

Please submit your comprehensive application including the usual documents, quoting the job number ScaDS-22.3 by December 13, 2022 (stamped arrival date of the university central mail service applies), preferably via the TU Dresden SecureMail Portal https://securemail.tu-dresden.de by sending it as a single pdf document to scads.ai@tu-dresden.de or to: TU Dresden, CIDS, Herrn Prof. Dr. Wolfgang E. Nagel, 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.