Saarland University is a campus university with an international reputation for research excellence, particularly in computer science and in the life sciences and nanosciences. The university is also distinguished by its close ties to France and its strong European focus. Around 17,000 students, studying over one hundred different academic disciplines, are currently enrolled at Saarland University. Saarland University is officially recognized as one of Germany's family-friendly higher-education institutions and with a combined workforce of more than 4000 it is one of the largest employers in the region.

The Professorship for Experimental Methodology of Materials Science is inviting applications for the following position commencing at the earliest opportunity

Academic research assistant (m/f/x)

Reference number W2796, salary in accordance with the German TV-L salary scale[1], pay grade: E13 TV- L, duration of employment: 3 years, volume of employment: 100 % of standard working time.

Workplace/Department:
Working group "Data-Driven Materials Design", Chair for Experimental Methodology of Materials Science, Department of Materials Science and Engineering

Job requirements and responsibilities:

- This position is part of the CircularSaar project, funded by the Saarland state government, which supports energy- and material-intensive industries in Saarland in their transition to a sustainable circular economy. Within CircularSaar, the Data-Driven Materials Design working group uses data analysis and artificial intelligence to link microstructural characterization data with material properties, enabling the discovery of new structure–property relationships and the development of innovative materials with improved or more resource-efficient designs. The group also focuses on machine learning-based analysis of microscopic microstructural images and acts as a central competence center for materials data science within the CircularSaar consortium.

- We are looking for a **Materials Data Scientist** who enjoys working at the interface of materials science and artificial intelligence. We explicitly encourage applications from **materials scientists with experience in AI**, as

[1] TV-L = collective agreement on remuneration of public sector employees in the German *Länder*
The pay grade assigned to an employee depends on their professional qualifications and the number of years of service. Each pay grade is further subdivided into levels. Entry-level employees with no previous experience will initially be assigned a level 1 rating. After one year at level 1 of the E10 pay grade, an employee will move up to level 2. After a further two years, the employee will move to level 3, etc.

well as **data scientists who are motivated to learn about materials, microstructures, and their physical interpretation**. Your tasks will include:

- Further development of machine learning–based workflows for the analysis of microstructural images, with a focus on low-data scenarios typical for experimental materials research. This includes investigating approaches such as synthetic microstructure generation and self-supervised learning to pretrain domain-specific model,
- Contribution to a range of interdisciplinary research projects in materials data science, in collaboration with partners across the university and industry. Tasks include exploratory data analysis, designing data acquisition and labeling strategies, training and evaluating machine learning models, and interpreting results in the context of process–microstructure–property relationships,
- Publication of results in peer-reviewed journals and presentations at international conferences,
- The position offers the opportunity to pursue a PhD based on the research conducted within the working group.

Your academic qualifications:

- Completed scientific university studies in Materials Science, Mechanical Engineering, Data Science, or comparable,
- Language skills (according to GER): English -C1.

The successful candidate will also be expected to:

- Have experience in data analysis, computer vision and machine learning,
- Programming skills in Python,
- Motivation and willingness to develop new expertise at the intersection of materials science and artificial intelligence,
- Have a flexible, independent, and precise working style,
- A self-motivated, results-oriented mindset combined with strong teamwork skills,
- Show excellent written and verbal communication skills,
- Language skills (according to GER): German -A1.

What we can offer you:

- A flexible work schedule allowing you to balance work and family, among other things the possibility of teleworking
- Secure and future-oriented employment with attractive conditions
- A broad range of further education and professional development programmes (for example language courses)
- An occupational health management model with numerous attractive options, such as our university sports programme
- Supplementary pension scheme (RZVK)
- Discounted tickets on local public transport services ('Job-Ticket Plus' of the saarVV)

We look forward to receiving your **meaningful online application** (in a PDF file) by **24.02.2026** to **martin.mueller1@uni-saarland.de**. Please include the reference number W2796 in the subject line of the e-mail.

If you have any **questions**, please contact us for assistance. Your contact:
Herr Dr.-Ing. Martin Müller
Group Leader Data-Driven Materials Design, Chair for Experimental Methodology of Materials Science
Tel.: +49 (0)681 302-70548

Pay grade classification is based on the particular details of the position held and the extent to which the applicant meets the requirements of the pay grade within the TV-L salary scale. Part-time employment is generally possible.

If you have obtained a foreign university degree, a proof of the equivalence of this degree with a German degree by the Zentralstelle für ausländisches Bildungswesen (ZAB) is needed before hiring. If necessary, please apply for this in time. You can find more information at https://www.kmk.org/zeugnisbewertung.

Unfortunately, neither costs for attending an interview at Saarland University nor costs for any certificate evaluation by the ZAB can be reimbursed in principle.

We welcome applications regardless of gender, nationality, ethnic and social origin, religion/belief, disability, age, and sexual orientation and identity. In accordance with its policy of increasing the proportion of women, the University actively encourages applications from women. Applications from severely disabled persons will be given preferential consideration in the event of equal suitability.

When you submit a job application to Saarland University you will be transmitting personal data. Please refer to our privacy notice for information on how we collect and process personal data in accordance with Art. 13 of the Datenschutz-Grundverordnung. By submitting your application you confirm that you have taken note of the information in the Saarland University privacy notice.