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UNIVERSITÄT
DES
SAARLANDES



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 Department of Computer Science at Saarland University is inviting applications for the following position commencing **01 January 2027**

Academic research assistant (m/f/x)

Reference number W2935, salary in accordance with the German TV-L salary scale¹, pay grade: E-13 TV-L; for 3 years (potential for contract extension until December 2030), employment: 100 % of standard working time.

Workplace/Department:

The Chair of Computer Science and Computational Linguistics invites excellent students holding master's degree for a fully funded doctoral position situated at the intersection of computational linguistics, large language models, and the cognitive science of program comprehension.

[Prof. Vera Demberg's lab](#) covers the highly interdisciplinary and fast-paced fields of psycholinguistics and computational linguistics.

Saarland University is one of the leading centres for computational linguistics and computer science in Europe and offers a dynamic and stimulating research environment. It is famous for its interdisciplinary research in language, translation, computation and cognition.

The lab is affiliated with both the Department of Computer Science and with the Department of Language Science and Technology.

The Department of Language Science and Technology organizes about 100 research staff in ten research groups in the fields of computational linguistics, psycholinguistics, speech processing, and corpus linguistics.

Both departments are part of the Saarland Informatics Campus, which brings together 800 researchers and 2000 students from 81 countries. We collaborate closely with the university's Department of Computer Science, the Max Planck Institute for Informatics, the Max Planck Institute for Software Systems, and the German Research Center for Artificial Intelligence (DFKI).

¹ TV-L = collective agreement on remuneration of public sector employees in the German *Länder*

Our researchers and students come from all over the world, and our primary working language is English.

The focus of the project:**Individualised AI Assistants for Software Comprehension**

Modern AI assistants generate code, tests, and explanations with considerable fluency, yet they do so uniformly, disregarding the substantial inter-individual differences among developers in experience, prior knowledge, and cognitive disposition. The overarching aim of this project is to make such assistance adaptive: to model how a given developer comprehends software and to tailor generated artefacts accordingly.

A first goal of this position concerns the prediction of software comprehension. Drawing on behavioural, eye-tracking, and EEG data, the doctoral researcher will develop interpretable models that characterise classes of developers according to shared patterns of visual attention and neurophysiological response, and relate these classes to demographic and cognitive factors such as programming experience and working memory capacity. Emphasis is placed on interpretability, so that the model can make transparent why a particular developer is assigned to a given class and why support is adapted in a specific way.

The second goal concerns the adaptation of the AI assistant itself. Building on these user classification, the researcher will investigate methods for controllable and faithful generation, including approaches grounded in the Rational Speech Acts framework, retrieval-augmented grounding to mitigate hallucination, and the integration of human eye-movement and EEG signals into the generation process, extending to test-time use of gaze data captured under naturalistic conditions.

Job requirements and responsibilities:

- The position is intended to start as soon as the beginning of January 2027 (start-date is negotiable, i.e., a later start is possible).
- Prior experience of research activities in large language models, natural language processing, and computational cognitive modelling. Familiarity with eye-tracking, EEG, or human-subjects experimentation is advantageous but not required.
- Prior experience in authoring scientific papers at a top venue is a plus.
- Strong grades from a top degree program in a relevant field.
- The research will be conducted in English, and a successful applicant must have excellent spoken and written proficiency in English.
- Strong motivation for scientific research.
- Strong interest in the research topics studied by the group.
- Interest in bridging scientific fields, specifically psycholinguistics / cognitive science and computational linguistics.

Your academic qualifications:

- Completed university studies in : A master's degree (holding or nearing completion of) in computer science, computational linguistics, or a cognate discipline, with strong programming skills and a demonstrated interest in one or more of the following: large language models, natural language processing, and computational cognitive modelling. Familiarity models of reading and/or code LLMs is advantageous but not required.

The successful candidate will also be expected to:

- Contribute to activities of the research group in the areas of research and mentoring
- Applicants are requested to submit their application, including:
 - a cover letter that specifies why you would like to work on this topic and what qualifies you for it,
 - an academic CV,
 - a list of academic publications,
 - your MSc thesis (or a current draft),
 - copies of academic degree certificates,
 - names of two potential references.

Please also include a 2-page research proposal in your application which outlines how you would approach the topic.

What we can offer you:

- Access to state-of-the art research and training facilities and a generous conference and travel budget
- Immersion in an interdisciplinary community made up of cognitive and computational researchers
- 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' of the saarVV)
- Job bike leasing (JobRad)

We look forward to receiving your **meaningful online application** (in a PDF file) by **31.10.2026** to **applications-vd@lst.uni-saarland.de**. Please include the reference number **W2935** in the subject line of the e-mail.

If you have any **questions**, please contact [Prof. Vera Demberg](#) for assistance.

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://zab.kmk.org/de/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.