Technische Informationsbibliothek (TIB) - Leibniz Information Centre for Science and Technology

TIB, being part of the Leibniz Research Association, is with around 600 employees one of the largest technical information centres in Germany, having three main functions: 1. Acting in the capacity of the Leibniz Information Centre for Science and Technology, our forward-looking services secure the infrastructural requirements for providing researchers in science and industry with high-quality information and literature. 2. Carrying out cutting edge research to further expand TIB's role as a German information centre for the digitisation of science and technology. 3. Offer library services for the Leibniz University Hannover. As the German National Library of Science and Technology, our future-oriented services ensure the infrastructural requirements for a high-quality supply of information and literature for research in science and industry. With the Open Research Knowledge Graph (ORKG), we are working to revolutionise the exchange and use of scientific knowledge in the digital age.

Postdoctoral Researcher (Postdoc) - Artificial General Intelligence (AGI) Beyond LLMs (ARC-AGI-3 Focus) (m/f/d)

City: Hanover; Starting date (earliest): At the earliest possible; Duration: fixed-term for two years; Remuneration: pay scale group 13 TV-L; Reference number: 12/2026; Closing date: 07/04/26

Tasks

Your role
While much current AI research focuses on large generative models, our group aims to explore approaches to Artificial General Intelligence (AGI) that go beyond LLM-centric paradigms.

We are seeking a postdoctoral researcher interested in developing new research directions, including work related to the phenomenology of cognition (e.g. formalizing concepts such as reasoning, agency, meaning, or experience into testable computational models, skill acquisition, and affordances). The successful candidate will bring strong foundations in machine learning and artificial intelligence, as well as a solid mathematical background.

The position requires a strong interest in exploring multiple research directions toward general intelligence, including current generative AI approaches as well as alternative paradigms beyond LLM-centric models.

The position is centered around ARC-AGI-3 as a primary reference framework for defining and evaluating research progress. Our work aims to advance capabilities aligned with the ARC-AGI-3 framing, with particular emphasis on robust generalization, abstraction, and problem solving beyond pattern matching.

Your responsibilities include

- Contributing to ARC-AGI-3-aligned research in close collaboration with team members, including the development of implementations and the systematic evaluation of methods.
- Contributing to the development of research approaches beyond LLM-centric methods and translating hypotheses into concrete models, experiments and measurable project outcomes within the project framework.
- Designing and conducting reproducible experimental pipelines (including baselines, ablation studies and robustness and out-of-distribution tests), including the use of game-based or game-like environments where scientifically appropriate.
- Planning and structuring research activities, including the definition of milestones, regular progress reporting and iterative refinement based on empirical results and professional feedback.
- Developing, documenting and maintaining reproducible research code, including version control, automation of training and evaluation workflows and the use of AI-assisted development tools.
- Preparing and communicating research results (e.g. documentation, internal presentations), contributing to scientific publications, and preparing open research artifacts (e.g. code and experiment configurations)

Requirements

Your profile

- Completed scientific university degree (Master's degree or equivalent) in Artificial Intelligence, Machine Learning, Computer Science, Mathematics, Physics or a closely related field.
- Completed PhD in one of the above or a closely related field.
- Strong background in Machine Learning and Artificial Intelligence, including interest in alternative approaches beyond standard deep learning methods.
- Demonstrated experience in academic research (e. g. through publications, conference contributions or comparable scientific achievements).
- Very good programming skills in Python and experience in developing and documenting reproducible research code (e.g. using PyTorch or comparable frameworks).
- Practical experience with AI-assisted development and coding tools (e.g. code assistants) to support development, experimentation and research workflows.
- Strong mathematical background relevant to AI/ML (e.g. dynamical systems, optimization, representation learning, or related areas, including but not limited to algebraic topology).
- Documented experience in at least one of the following interdisciplinary research areas:
- Artificial Intelligence and Psychology / Cognitive Science (e.g. cognition-inspired modeling, human learning and reasoning), or
- related interdisciplinary research approaches with relevance to AI.
- Very good command of written and spoken English.

Desirable additions to your profile

- Peer-reviewed research outputs (e. g. publications, preprints under review, or substantial open-source contributions) in nature-, bio-, or cognition-inspired AI (e. g. neuro-inspired learning, cognitive architectures, biologically plausible learning methods, or self-organization).
- Experience with evaluation in interactive environments (e. g. games), reinforcement learning, planning, world models, causal modeling, or methods for robust generalization.
- Strong written communication skills and experience in interdisciplinary collaboration, including co-authorship of scientific publications.

What we offer

The Technische Informationsbibliothek (TIB) – Leibniz Information Centre for Science and Technology – Program Area D, Open Research Knowledge Graph, is seeking a

Postdoctoral Researcher (Postdoc) - Artificial General Intelligence (AGI) Beyond LLMs (ARC-AGI-3 Focus) (m/f/d)

to join the Artificial Intelligence for Scholarly Communication Research Group (Prof. Dr. Sahar Vahdati) at the earliest possible date.

The position is initially fixed-term for two years. Continued employment is intended. The regular weekly working hours are 39.8 hours (full-time). The position is generally suitable for part-time work. The remuneration is based on pay scale group 13 of the collective agreement for the public service of the German states (TV-L).

What we offer
Our mission is to keep rethinking and innovating the provision and use of research data and information. In TIB's Research and Development Department you have the opportunity to advance your career in a sizable, dynamic and excellent environment. We provide a scientifically and intellectually inspiring environment with an entrepreneurial mindset, embedded in a leading technical university and one of the largest technical information centers being part of the Leibniz Association. TIB collaborates closely with the L3S Research Center at Leibniz University Hannover, one of the world's leading research institutes in the field of Web & Data Science, within the Leibniz Joint Lab Data Science & Open Knowledge. Last but not least, we attach great importance to an open, creative and fun work atmosphere.

Furthermore, we offer

- A job in the public service oriented towards the common good on the basis of the collective agreement for the public service of the German states (TV-L) with a salary in pay scale group 13 TV-L.
- A flexible workplace in terms of time and space with offers to reconcile work and family life, such as mobile and remote work options as well as flexible working time models (flexitime).
- A special annual payment at the end of the year and 30 days of vacation per year with a five-day working week as well as additional days off on Christmas Eve (December 24th) and New Year's Eve (December 31st).
- A modern workplace in a central location of Hannover with a collegial, attractive

and versatile working environment.

- An employer with a wide range of internal and external further education and training measures, workplace health promotion and a supplementary pension scheme for the public sector (VBL).
- Employee discount in the canteens of the Studentenwerk Hannover as well as the possibility to use the various offers of the University Sports Hannover at a discount.
- Independent and future-oriented activities that offer variety and room for personal development.
- Funding for necessary equipment, conference and research visit travel.
- Work in the context of a national, European or international research and innovation project.

If you are interested, questions regarding the position can be addressed to Prof. Dr. Sahar Vahdati, head of the Artificial Intelligence for Scholarly Communication Research, by mail at Sahar.Vahdati@tib.eu.

Application

We look forward to receiving your application. To submit your application, please click here.

Paper applications are also possible on an equal basis. In this case, please send your complete application documents with the subject 12/2026 before April 7, 2026 addressed to

Technische Informationsbibliothek (TIB)
Personalservice
Herrn Daniel Eilers
Welfengarten 1 B
30167 Hannover
Germany

or alternatively as a single PDF document file to bewerbung@tib.eu. For applications in digital from, please send a PDF file with a maximum size of 10 MB.

We invite you to include an indication of your annual salary expectations with your application.

In the case of foreign university degrees, it is mandatory to submit a Statement of Comparability from the Central Office for Foreign Education (ZAB) for the final assessment of the hiring requirements during the hiring process (link for more information). A fee will be charged for this. This obligation does not apply if the foreign university degree has already been assessed by an expert and is listed in the ANABIN database of the ZAB as an equivalent university degree (link to ANABIN database).

TIB is an equal opportunity employer, providing ideal working conditions, and continuously taking action to enable its employees to combine career interests with family life. It wants to promote equal career opportunities for women and men in

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particular and therefore urges qualified women to apply.

Severely disabled candidates and those with equivalent status will be given preferential consideration in the event of equal suitability. If you wish your rights as a person with a severe disability or as a person deemed equivalent to a person with a severe disability to be taken into account during the selection process, please inform us of this voluntarily at an appropriate place in your application (e.g. in the cover letter or CV, or at another clearly highlighted point) and enclose appropriate proof (e.g. a copy of the disability certificate).

Equal opportunity is one of our core organizational values. We therefore welcome applications regardless of nationality, ethnic and social origin, gender identity, gender expression and/or gender characteristics, religion and worldview, age, sexual orientation, and identity.

Please indicate in the subject of your application which job exchange brought our offer to your attention.

Please note that your application documents will not be returned, and application and travel costs cannot be reimbursed.

More information at https://stellenticket.de/202941/TUBS/
Offer visible until 07/04/26

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