

The [Chair for Machine Learning in Science](#) (Prof. Dr. Jakob Macke) at the [Excellence Cluster](#) “Machine Learning: New Perspectives for Science” at the University of Tübingen has an opening for

Research Engineer (m/f/d) (E13 TV-L)
working at the intersection of
Machine Learning and Computational Neuroscience

We are building large-scale biologically inspired neural networks simulating information processing in the fruit fly visual system ([Lappalainen et al., Nature, 2024](#)), funded by the ERC Grant **DeepCoMechTome**. You will play a key role in these efforts by

- (1) developing and maintaining high quality research code and open-source packages,
- (2) training large-scale mechanistic neural networks on GPU clusters, and
- (3) designing and implementing new features at the cutting edge of scalable mechanistic modeling.

Your work will involve efficient implementation of differentiable simulators for neural activity (<https://github.com/jaxleyverse/jaxley>), maintaining and advancing methods for simulation-based inference (<https://github.com/sbi-dev/sbi>) and collaborative development of large-scale neural simulations (<https://github.com/TuragaLab/flyvis>).

Candidate qualifications:

We are looking for a candidate who is driven by improving research code quality, accessibility and reproducibility. Together, we are stepping into a new era of scaling biologically realistic neural modeling. We are looking for someone who is excellent at problem-solving, has a strong quantitative background (ideally, Engineering/Math/CS), and is passionate about their work. An ideal candidate has a post-graduate degree in a relevant discipline, including but not limited to machine learning, computational neuroscience, and/or numerical simulation. If you are genuinely interested in collaborative work at the frontier of AI and computational neuroscience, come and work with us!

Application:

Initial fixed-term contracts will be until 30th June 2028 with possible extension; starting date is flexible. Employment will be carried out by the central administration of the University of Tübingen.

Please submit your application materials to mls-jobs@inf.uni-tuebingen.de, including a CV with publication list, relevant transcripts, a statement of motivation, contact details of two referees (all in a single pdf), and a link to a code repository (or work samples). **Please apply before January 10, 2025.**

Our group and campus:

We (www.mackelab.org) develop machine learning and AI methods to accelerate scientific discovery, with a particular focus on neuroscience. We aim to provide an interdisciplinary, collaborative and supportive work environment which emphasizes diversity and inclusion. Working language in the group and institute is English (and many academics in Tübingen do not speak German).

We are embedded in Tübingen’s renowned community in AI and computational neuroscience, including the Tübingen AI Center, the ELLIS Institute, the Excellence Cluster Machine Learning, the Bernstein Center for Computational Neuroscience, and Hertie AI. We are located in the new Cyber Valley Research Building, in a collaborative space shared with groups from the AI Center and ELLIS.

Institutional commitment to diversity, equity, and inclusion:

The university is committed to equal opportunities and diversity and seeks to raise the number of women in research and teaching. We urge qualified women academics to apply for these positions. Equally qualified applicants with disabilities will be given preference in the hiring process.