

PhD Positions in Computational Neural Dynamics / Machine Learning / AI4Neuro

Prof. Richard Gao invites applications for 2 PhD positions (**3 years, 75% E13 TV-G-U, m/f/d**) to join the new research group at **Goethe University Frankfurt**, in the Institute of Computer Science, Center for Cognition and Computation. Deadline is **December 31, 2025** or until filled.

About us:

The group is at the **intersection of computational neuroscience and AI**: We study circuit mechanisms and functional roles of brain dynamics using a wide range of computational methods—including machine learning, simulator models, signal processing, and statistical data analysis—in collaboration with experimental and computational colleagues. More generally, we aim to bridge neurobiology and cognition while advancing [AI4Neuro](#), and in turn leverage insights from the brain to inform AI.

As the first members, you will shape the team culture while receiving training in academic research, scientific literacy, and computational methods in neuroscience and ML. You will be joining vibrant communities in computational neuroscience and biology, cognitive science, and AI, with collaborative opportunities at multiple Universities and Max Planck Institutes, and be a part of the [ICNF Network](#). **We are located in Frankfurt**, a transportation hub of Europe with diverse international communities. The working language of the group and broader academic community is English.

For more information, please check out the [group's website](#) and Richard's [personal website](#).

Candidate profile:

- Master's degree or equivalent research experience in computational neuroscience, computer science (ML/AI), bio / electrical / computer engineering, or a related field.
- Strong quantitative and scientific programming skills in python and relevant libraries.
- Prior experience in **one** of the following is **required**: (1) computational modeling of neural circuits, (2) training artificial neural networks in pytorch or other deep learning frameworks, **or** (3) signal processing and statistical data analysis; experience in multiple is **preferred**.
- An interest in neurobiology, brain circuits, and cognition.
- A desire for independent research while contributing to a positive group environment.
- Strong written and spoken English; German proficiency is not required.

To apply, please send the following material in **one combined pdf** to r.gao@em.uni-frankfurt.de, with the subject line [**PhD Application**] **Firstname Lastname**:

(1) A statement of interest (1 page max), **(2)** CV, **(3)** transcripts, **(4)** GitHub account or link to a project repository, and **(5)** contact information of two potential references,

Visit www.gao-unit.com/join-us for details on the statement of interest and other information. We strongly encourage candidates of diverse gender, ethnicity, and socioeconomic backgrounds to apply. If you have any questions about this position or the application process, contact Richard by email.

Deadline: December 31, 2025 or until filled. Expected starting date: **February 2026 (flexible)**.