

Postdoctoral Fellowship in Neural Science

Position Description

The Neural Science program at NYU Shanghai offers a global and interdisciplinary environment for advanced research. The program emphasizes rigorous, hands-on research—ranging from systems neuroscience to computational modeling and cognitive sciences—supported by strong mentorship and collaborative culture. By combining interdisciplinary training, a robust research infrastructure, and a unique global academic network, NYU Shanghai provides postdoctoral fellows with an exceptional platform to pursue innovative neuroscience and build international scientific careers.

<u>Professor Sukbin Lim</u> is seeking a highly motivated Postdoctoral Fellow to join the research lab in theoretical and computational neuroscience. The research will focus on how neural networks generate cognitive functions such as learning, memory, and decision-making. It will study the dynamics of local circuits and their interactions—such as sensory—memory and memory—decision-making pathways—and develop computational approaches to reverse-engineer these mechanisms. The lab maintains close collaborations with experimental groups, providing opportunities for integrative and interdisciplinary research. For examples of recent projects, see <u>Yang et al., eLife 2024; Gu et al., Neuron 2025; Gu et al., bioRxiv.</u>

The Postdoctoral Fellow's responsibilities include the following:

- Model Development & Analysis: Design and implement computational models to study local circuits and their interactions for cognitive functions. Explore how network architecture and dynamics give rise to observed behavioral and neural phenomena.
- Data Integration & Collaboration: Work closely with experimental collaborators working on neurophysiology and human psychophysics to align computational models with behavioral and neural data. Generate testable hypotheses regarding neural mechanisms.
- Research Communication: Maintain open and constructive discussions with the supervisor and team members to shape research directions and ensure scientific rigor. Prepare manuscripts for high-impact journals and contribute to grant proposals and collaborative reports by providing computational and theoretical expertise.

Terms of employment at NYU Shanghai are comparable to NYU New York and other U.S. institutions.

Qualifications

Candidates should have the following qualifications:

- Hold a Ph.D. by the start date of the position in computational and theoretical neuroscience, or a related discipline with strong quantitative training in Mathematics, Physics, Data, and Computer Sciences;
- Experience in modeling, data analysis, and statistical methods of networks/complex systems is required. Experience with computational models of recurrent neural networks would be a plus;
- Strong programming skills (e.g., Python, MATLAB or C/C++) are required. Experience with scientific libraries would be a plus.

The position is for an initial appointment of one year, with possible extension up to two years. The appointment start date for non-Chinese applicants is subject to immigration regulations.

Application Instructions

To be considered, applicants are asked to submit a curriculum vitae and cover letter addressing research and academic interests. Additionally, applicants will be prompted to enter the names and email addresses of at least two referees. Each referee will be contacted to upload a reference letter through Interfolio.

Review of applications will begin immediately and will continue until the position is filled. To apply, follow this link: https://apply.interfolio.com/174331. If you have any questions on the application process, please email the NYU Shanghai NY Office of Faculty Recruitment shanghai.faculty.recruitment@nyu.edu. For further questions on the position details, please contact Sukbin Lim at sukbin.lim@nyu.edu.

About NYU Shanghai

NYU Shanghai is the third degree-granting campus within New York University's Global Network. It is the first higher education joint venture in China authorized to grant degrees that are accredited in the U.S. as well as in China. All teaching is conducted in English. A research university with liberal arts and science at its core, NYU Shanghai resides in one of the world's great cities with a vibrant intellectual community. NYU Shanghai recruits scholars of the highest caliber who are committed to NYU's global vision of transformative teaching and innovative research and who embody the global society in which we live.

NYU's Global Network includes degree-granting campuses in New York, Shanghai, and Abu Dhabi, complemented by thirteen additional academic centers across the world. Faculty and students may circulate within the Network in pursuit of common

research interests and cross-cultural, interdisciplinary endeavors, both local and global.

For people in the EU, click here for information on your privacy rights under GDPR: www.nyu.edu/it/qdpr.

<u>NYU Shanghai</u> is an equal opportunity employer and strongly encourages applications from all interested persons. NYU Shanghai affirms the value of differing perspectives on the world as we strive to build the strongest possible university with the widest reach.