

Student Assistant (f/m/d) (Master student only; 10-15 Hours per Week; Dec 2024-May 2025)

Online seit 30.10.2024 | 2024-10-30-897942 | Studentische Hilfskräfte

Stellenbeschreibung

The aim of the project is to investigate how the hippocampal and cortical replay change with age and the role of neural replay in human cognitive decline. Neural replay is a phenomenon observed in the brain of rodents, primates, and humans that previously experienced activity is reactivated during wakefulness or sleeping, but at an accelerated time scale. Numerous studies have highlighted the critical role of neural replay in planning, memory consolidation and decision making. Although one decade ago, extracellular recording has provided evidence that sequence reactivation was impaired in aged rodents, we still lack empirical results regarding the role of neural replay in human cognitive decline. To address these questions, we will employ non-invasive fMRI recording and leverage advanced statistical approaches (Schuck and Niv, 2019; Wittkuhn and Schuck, 2021) developed by the lab. We hope the insights gained from this project will facilitate our understanding of the role of neural replay in cognitive aging and psychiatric diseases.

We anticipated the candidate will be able to start **as soon as possible**. We prefer candidates who have bachelor-degree and can commit to a minimum duration of **3 months**. The expected work time will be **10-15** hours per week. This position can be combined with a master's thesis, focusing topics related to aging (e.g., learning, decision making) or/and replay (e.g., computational function). The payment of this position will be:

- 15,21 Euro/Hour with a contract as Student Assistant (with Bachelor-Degree)

We value diversity and therefore welcome all applications - regardless of gender, nationality, ethnic and social origin, religion/belief, disability, age as well as sexual orientation and identity.

Please send your complete application documents (tabular CV without photo, letter of motivation (max. 1 page in English)), current semester/registration certificate, university transcripts or transcript of records or simple printout of the performance account, if applicable, certificates or proof of relevant practical activities) preferably in a PDF file and by e-mail to:

Email: xiangjuan.ren@uni-hamburg.de

The application will remain open until the position is filled.

Anforderungsprofil & Qualifikationen

Your Profile/Background:

Requirements:

- Enrollment in a master's degree program (2nd year preferred) at the University of Hamburg, with a background in psychology or cognitive neuroscience.
- Very good language skills in **German** and English, speaking and writing.
- Well organised/structured, independent and very careful work attitude.
- Enough patience when communicating with participants.
- Readiness to elaborate and get acquainted with new fields of activity.

Optional:

- Basic knowledge of mathematics and statistics.
- Programming skills (e.g., python/matlab/R).

What we offer:

- In-depth knowledge of cognitive aging and neural replay as well other research topics in the lab.
- Hands-on experience with fMRI data acquisition and advanced imaging data analysis.
- Opportunity to learn/engage in computational modeling/neural networks using behavioral data.
- Guidance and instruction for your master's thesis.
- Other preliminary research training.

Your Tasks:

- Support in fMRI scan at UKE, including instructing participants (younger and older adults), equipment preparation, ensuring proper functioning of the apparatus and communicating with participants during scan.
- Support in behavioral testing, including task administration and data collection.

Stellenmerkmale

Beschäftigungsart	Studentische Hilfskräfte
Beschäftigungsumfang	Teilzeit (befristet)
Home Office	Nein
Bewerbung an	xiangjuan.ren@uni-hamburg.de

Kontaktdaten

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