



The “Human and Machine Cognition” lab of the Cluster of Excellence “Machine Learning: New Perspectives for Science” and the “Tübingen AI Center” invites applications for

Two PhD positions (m/f/d; E13 TV-L, 65%)

to be filled as soon as possible. Both positions are limited to three years.

About the group:

The HMC lab is led by Dr. Charley M. Wu and seeks to understand the computational strategies that allow humans to perform massively scalable inference and rapidly adapt to novel environments, both alone and in social environments. This research aims to use insights from human cognition to improve machine learning methods, while also using advances in machine learning as tools for understanding human intelligence.

Current research topics include generalization and efficient exploration in large problem spaces, the learning of map-like representations in spatial and non-spatial environments, social search dynamics in virtual environments, and cumulative cultural evolution in online communities. Our research methods include online experiments (commonly in the form of interactive games), lab-based virtual reality experiments, computational modeling of behavior, evolutionary simulations, developmental studies (comparing children and adults), fMRI/EEG, and analyzing large scale real-world datasets. We also have a rich collaboration network of researchers from Harvard, Princeton, UCL, and several Max Planck Institutes around Germany. To find out more, visit the lab website at www.hmc-lab.com.

About the position:

The candidate should hold a MSc degree in cognitive science, computer science, psychology, computational neuroscience, statistics, or any relevant discipline. The ideal candidate should be self-motivated, comfortable with both analytic and critical thinking, and have a passion for science. Please indicate in your application if you have prior experience with conducting experiments, computational modeling, machine learning, and/or neuroimaging (EEG/fMRI). Skills in computer programming languages (e.g., R, Python, Matlab, Javascript, Java, etc.), mathematics, writing (in English), and the ability to independently manage a project (of any type) should also be mentioned.

About Tübingen:

Tübingen is a scenic university town on the Neckar river in South-Western Germany. The quality of life is exceptionally high and the atmosphere is diverse and inclusive. Most locals speak English and knowledge of German is not required to live here. Tübingen offers excellent research opportunities due to the University, four Max Planck institutes, the University Hospital, and Europe’s largest AI research consortium. You can find out more about Tübingen here: <https://www.tuebingen.de/en/>

How to apply:

Please send a cover letter, a description of your research interests (max 1 page), your CV, the names and email addresses of 2-3 referees, and unofficial copies of your University degrees to the Central Office of the Cluster of Excellence (ml-in-science@uni-tuebingen.de). If you have any questions about the position, please do not hesitate to directly contact Charley Wu (charleymwu@gmail.com). The university seeks to raise the number of women in research and teaching and therefore urges qualified women academics to apply for these positions. Equally qualified applicants with disabilities will be given preference. The employment will be carried out by the central administration of the University of Tübingen. Applications received by **December 14th, 2020** will receive full consideration.