PhD position on Metacognitive Learning (m/f)

The newly established Max Planck Research Group for Rationality Enhancement, headed by Dr. Falk Lieder at the Max Planck Institute for Intelligent Systems in Tübingen, Germany, is looking for a PhD student (m/f) for a project at the intersection of psychology and machine learning.

The project

Our mission is to lay the cognitive and technological foundations for helping people become more effective. The goal of this PhD project is to understand and improve how people learn how to decide. You will combine process-tracing experiments with computational modeling to reverse-engineer the mechanisms of metacognitive learning. We will then validate the resulting theories by translating them into tools and interventions for helping people learn how to make better decisions.

What we are looking for

Applicants should have strong programming skills and prior experience with experimental and computational approaches to studying human cognition. The ideal applicant (m/f) would also be familiar with programming and running online experiments, reinforcement learning, decision science, and machine learning. Familiarity with cognitive training, probabilistic models of cognition, program induction, web/app development, and/or cognitive control would also be a plus.

The positions

The PhD student (m/f) will receive a PhD funding contract equivalent in remuneration to pay group E13, 65% of the Collective Wage Agreement for the Public Service. An initial contract will be given for 3 years with possibility of 1-year extension.

The Max Planck Institute for Intelligent Systems

The Max Planck Research Group for Rationality Enhancement is part of the MPI for Intelligent Systems in Tübingen, Germany (http://is.tuebingen.mpg.de). The institute is a world-class center for foundational research in machine learning and related areas. We are part of the Cyber Valley Initiative that is bringing new research groups, professorships, and industry partners to Tübingen and Stuttgart. The majority of the institute's scientific employees come from outside of Germany. You will work among gifted students and experienced scientists from all over the world; and have access to excellent infrastructure, including several regular series of tutorials, lectures, journal clubs and invited talks by international

guests, as well as a large computer cluster, and dedicated full-time specialists. The working language at the institute is English.

Tübingen

Tübingen is a scenic medieval university town, cradled in what is simultaneously one of Germany's most beautiful landscapes one of Europe's most economically successful areas. Stuttgart airport is an hour by bus, Frankfurt airport can be reached in two hours by train. Most locals speak English and knowledge of German is not required to live here.

How to apply

For the PhD student position, please apply to the International Max Planck Research School for Intelligent Systems (www.imprs.is.mpg.de) by November 15. To express your interest for this specific project please list Dr. Falk Lieder as one of the faculty members you are interested in working with and mention the project in your motivational letter. Please start your application as early as possible so that you will have enough time to submit all of the required documents (see https://imprs.is.mpg.de/application) on time. If you have any questions about the project, our research group, or anything else, please do not hesitate to contact Falk Lieder.

The Max Planck Society is committed to increasing the number of individuals with disabilities in its workforce and therefore encourages applications from such qualified individuals. The Max Planck Society seeks to increase the number of women in those areas where they are underrepresented and therefore explicitly encourages women to apply.