Max Planck Institute for Biological Cybernetics
MPRG Computational Principles of Intelligence

PhD-Student Position (m/w/d) in Computational Models of Human Learning and Exploration

The Max Planck Research Group on "Computational Principles of Intelligence" at the Max Planck Institute for Biological Cybernetics in Tübingen, Germany, is looking to fill two fully-funded Ph.D. positions (m/w/d) to work on research at the intersection of human and machine learning.

About the position:
We are looking for PhD students to join our new lab working on computational principles of intelligence, starting in February 2020 (starting date is negotiable). The ideal candidate should hold a M.Sc. degree in cognitive science, neuroscience, cognitive psychology, statistics, computer science, or any other computational field and have strong programming skills and mathematical abilities. Some elements to highlight in your application include any background in empirical research, applied statistics, computational modeling, machine learning, and evidence of self-motivation and independence. If you have specific skills in computer programming (e.g. R, Python, JavaScript, LaTeX, MATLAB, etc.) or have successfully completed research projects in the past, please mention that as well.

About the group:
The group (PI: Eric Schulz) conducts research on the fundamental principles of human intelligence. Our goal is to build and test comprehensive theories of the human ability to generalize from little data, to explore efficiently, and to find approximate solutions to complex problems. Some examples of our current research topics include exploration in vast decision spaces, the role of compositional generalization in rapid learning, the use of big data and complex online games to study human reinforcement learning, as well as modeling how people approximate inference when reasoning about events. Our research methods include laboratory and online experiments, computational modeling, machine learning, psychophysics, fMRI, eye-tracking, interactive games and developmental research. We collaborate with researchers in Germany, the UK and the US. You can learn more about our research at cpilab.org

About the institute:
The Max Planck Institute for Biological Cybernetics investigates information processing in the brain. The Institute uses experimental, theoretical and computational methods to study perception, memory, decision-making, motor performance and more. The Institute is multidisciplinary, has excellent facilities and outstanding infrastructure, is closely linked to sister Max Planck Institutes and the University of Tübingen, and offers a superb international research environment operating in the English language. More details about the institute can be found on its website: kyb.tuebingen.mpg.de

About Tübingen:
Tübingen is a scenic medieval university town. The quality of life is exceptionally high and the atmosphere is both tolerant and inclusive. Most locals speak English and knowledge of German is not required to live here. Tübingen offers excellent research opportunities due to four Max Planck institutions, the University, the University Hospital, the Hertie Institute for Clinical Brain Research, the Werner Reichardt Centre for Integrative Neurosciences, and several companies focusing on machine learning research. The old town is a sight in itself, with marvellous old buildings dating back to the 15th century, an old botanical garden, many churches and cobblestone alleys. Numerous sidewalk cafes, wine taverns, pubs, restaurants and parks add to the atmosphere. You can find out more about Tübingen here: tuebingenresearchcampus.com

How to apply:
Please email a cover letter, your CV, unofficial transcripts, a description of your research interests (not longer than one page), and the names and email addresses of 2-3 referees to eric.schulz@tue.mpg.de. If you have any questions about the project, the research group, or anything else, please do not hesitate to contact us directly. 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. Applications received by August 30th 2019 will receive full consideration; review of applications will continue until the positions are filled.