

The project “Human-Machine Learning” at the Center for Humans and Machines, Max Planck Institute for Human Development, is seeking applications for a

**Postdoctoral Research Position (m/f/d)  
(E 13 TVÖD; 39 hours/week)**

Funding for the postdoctoral position is available for two years, with possibility of extension for a third year. The position is available from September 1, 2019, or later.

**Job Description**

The “Human-Machine Learning” theme (PI: Dr. Niccolo Pescetelli) seeks to quantify the impact that digital technologies have on human social learning. This research will advance the fields of computational social sciences and cultural evolution using rigorous experimental and observational methodology, together with strong analytic and computational techniques. We expect that the post-doctoral researcher (m/f/d) will work on quantitative and technical aspects of the project, providing their expertise in using current and novel approaches to statistical inference.

The successful candidate (m/f/d) will have no formal teaching requirements. The project is part of the Center for Humans and Machines (director: Iyad Rahwan) at the Max Planck Institute for Human Development (MPIB) in Berlin.

**Requirements**

We are searching a postdoc (m/f/d) with a strong interest and established expertise in computer science and machine learning. The successful applicant (m/f/d) is expected to hold a doctoral degree in computer science or related fields.

**Essential**

The successful applicant needs to possess:

- Expertise in Bayesian statistics, Bayesian networks and graphical models
- Demonstrated prior work in causal inference
- Outstanding experience in data science, as demonstrated by a track record of publications in top scientific journals.
- Experience in working with large datasets
- Experience with experimental and observational methodology.
- The ability to work independently.
- High proficiency in English.

Preferable

Proficiency also in one (or more) of the following skills will be advantageous to the successful applicant:

- Knowledge of state-of-the-art generative models in machine learning, e.g. GANs and VAEs.
- Expertise in implementing and debugging deep reinforcement learning models (e.g. those used in Atari DQN and AlphaZero).
- Expertise in phylogenetic models and tree-like datasets
- Expertise in Markov models

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.

Furthermore, 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.

To apply, please send (as ONE FILE and via email, with the sentence "Postdoc application in Human-Machine Learning" in the subject line) a statement of research interests, a CV, a copy of relevant certificates, (p)reprints of two publications, and a list of two references to Prof. Dr. Iyad Rahwan, MPI for Human Development, Lentzeallee 94, 14195 Berlin ([sekrahwan@mpib-berlin.mpg.de](mailto:sekrahwan@mpib-berlin.mpg.de)). Receiving of applications will continue until the position is filled and evaluation of applicants will start on a first-come-first-serve basis.