

## Postdoctoral Fellow Position at Carnegie Mellon University

### Deep Reinforcement Learning Techniques for Human Robot Teaming Systems

**OPEN POSITION:** A postdoctoral fellow position at Robotics Institute, CMU

#### **SUPERVISOR:**

Prof. Katia Sycara ([katia@cs.cmu.edu](mailto:katia@cs.cmu.edu))

The Robotics Institute, Carnegie Mellon University

Website: <http://ri.cmu.edu/ri-faculty/katia-sycara>

#### **LOCATION:**

The Advanced Agent-Robotics Technology Lab

The Robotics Institute, Carnegie Mellon University

Pittsburgh, Pennsylvania, USA

#### **DESCRIPTION:**

The successful candidate will work on Deep Reinforcement Learning algorithms for human agent teams, with agents interacting autonomously or with humans. Start date in early 2021 is desirable but negotiable. The expected duration of the position is one to two years with renewals upon review. In particular the research will involve computational models for making inferences and predictions about the behaviors and activities of human-agent teams so as to (1) perform complementary beneficial actions, and (2) give advice to human and agent team mates to improve overall team performance.

#### **QUALIFICATIONS:**

- PhD in a field related to AI/ML in particular reinforcement learning in Robotics, CS or related discipline.
- A strong theoretical background in Machine Learning, multi robot decision making, and decision-making under uncertainty.
- Programming skills including experiences using C++, Python, and/or MATLAB, Neural Network frameworks, eg pytorch
- Ability to present work clearly both written and orally
- Experiences with deep learning mandatory, experience with ROS desired.

#### **APPLICATION DETAILS:**

Applicants should provide the following material via email to Prof. Katia Sycara ([katia@cs.cmu.edu](mailto:katia@cs.cmu.edu)). Please use the subject line: "Postdoc application". Applications will be reviewed as they are received.

- A curriculum vitae
- A statement of research expertise and interests (up to 2 pages)
- Up to 3 publications
- Names and contact information of three references
- Dates of availability
- A personal website, if available, where further details can be found

#### **DUTIES AND RESPONSIBILITIES**

The postdoc will (a) carry out high quality research and publish the research results, (b) assist in research supervision and guidance of graduate and undergraduate students, (c) present research results to sponsors, (d) participate in research proposal preparation.