

REINFORCEMENT LEARNING Exercise 0



Preliminaries

Register in ILIAS¹.

0 Lecture

Watch *Lecture 01: Markov Decision Processes*² before the upcoming session on Friday, October 26.

Feel free to also watch *Lecture 00: Introduction to Reinforcement Learning*³. However, most parts are covered by our first session and the rest of the lecture.

1 Introduction to RL

Post cool RL applications in the forum⁴, if you happen to find one that has not been posted already.

2 Gym

Have a look at the OpenAI Gym⁵ tutorial. Write a small control loop using Gym, where you iteratively receive an observation from the CartPole environment, render the scene and apply an action. The agent may follow any policy of your choice. Print the observations and rewards returned by the environment to the console.

¹https://ilias.uni-freiburg.de/goto.php?target=crs_1120463&client_id=unifreiburg

²https://ilias.uni-freiburg.de/goto.php?target=xvid_1121345&client_id=unifreiburg

³https://ilias.uni-freiburg.de/goto.php?target=xvid_1139788&client_id=unifreiburg

⁴https://ilias.uni-freiburg.de/goto.php?target=frm_1121060&client_id=unifreiburg

⁵<https://gym.openai.com/docs/>