

Homework

Task Maze Example

You will implement Sarsa and Q-learning for the Maze environment from `OpenAI Gym`. We have provided custom versions of this environment. In the scenario, a red rectangle (agent) are initialized at the maze made up of 4×4 grids and can only observe its location. At each time step, agent can move to one of four neighboring grids. The reward is +1 if agent is located at the yellow grid, -1 if agent reaches the black grid, otherwise 0.

1. **(coding)** Implement **Sarsa** in `RL_sarsa.py`.
2. **(coding)** Implement **Q_learning** in `RL_q_learning.py`.

Submission

Submit a zip file that includes your source code and PDF of report to the email(zhangyc8@mail2.sysu.edu.cn)

Naming format of zip file: Student ID_Name_Assignment ID, e.g. : 20220315_张三_homework10

The environment code can be available at https://github.com/ZYC9894/SYSU_RL2022