

Resources

## **Exercises**

To complete the exercises in this lesson, clone the following GitHub repository:

github.com/udacity/reinforcement-learning/

Make sure you have Python 3 installed, either natively or through Anaconda, along with the following packages:

numpy, scipy, pandas, matplotlib, scikit-learn, tqdm, ipython, jupyter, gym

Additional packages, if needed, may be listed at the beginning of specific exercise notebooks.

## **OpenAl Gym**

We'll be using **OpenAl Gym** for coding exercises throughout this class. It is an open-source library and platform for developing and sharing reinforcement learning algorithms. If you haven't used it before, now is a good time to get familiar with it.

Read the instructions in the **OpenAl Gym documentation** to learn the basic syntax and usage.

The documentation has instructions for installing OpenAI Gym on your computer that might be helpful. Some environments have additional dependencies that you may need to install (e.g. a physics or rendering engine.)

You're also encouraged to take the time to check out the **leaderboard**, which contains the best solutions to each task.

Check out this **blog post** to read more about how OpenAI Gym is used to accelerate reinforcement learning (RL) research.

## Textbook: Sutton & Barto, 2nd Ed.

We will recommend you to read excerpts from this **classic textbook on reinforcement learning**. The topics we cover in Deep Reinforcement Learning are discussed in *Part II: Approximate Solution Methods*. In addition, we'll refer to



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Note that all of the suggested readings are optional! But they are highly recommended, esp. if you find a topic interesting and want to know more about it, or if something is unclear and you need an alternate explanation.

Check out this GitHub repository to see Python implementations of most of the figures in the book.

**NEXT**