CSE 4/546 Reinforcement Learning

Quiz 6

Due Date: March 21, 11:59pm

1 Description

You will be required to use one of the deep learning frameworks to implement value function approximation algorithms. For this quiz you need to review the basics of the framework, that will help you to get started with Assignment 2. You can go with any of Keras / Tensorflow / Pytorch frameworks. Although all of these frameworks are versatile and can solve deep learning problems, we encourage you to explore Pytorch. Recently this framework has been accepted by RL communities, and it also mostly provides a better performance and faster convergence on RL-related tasks. If you are planning to use CCR GPU resources, complete the task on CCR.

2 Task [9 pts + 7 pts x 3(different sets of parameters for NN)]

Complete ONE of the tutorials listed below. Use your own example values and hyperparameters, while following the tutorial examples. Provide the results of the neural network setup using THREE different sets of parameters (consider changing the number of layers, number of nodes, activation function, optimizer, etc).

Pytoch

- Deep Learning With Pytorch: A 60 Minute Blitz

Keras / Tensorflow

- Introduction to Keras

3 Submission

Submit the work as Jupyter Notebook (.ipynb) to UBlearns under Quiz 6.