

8. Deep Q-network

Extension Note: Project 5 due date has been extended by 1 **more** day to **September 6 23:59UTC** .

As you have observed in the previous tab, a linear model is not able to correctly approximate the Q-function for our simple task.

In this section, you will approximate $Q(s, c)$ with a neural network. You will be provided with a DQN that takes the state representation (bag-of-words) and outputs the predicted Q values for the different "actions" and "objects".

Deep Q network

1/1 point (graded)

Complete the function `deep_q_learning` that updates the model weights, given the transition data $(s, c, R(s, c), s')$

Please enter the *average episodic rewards* of your Q-learning algorithm when it converges.

✓ Answer: 0.50

Submit

You have used 1 of 6 attempts

📘 Answers are displayed within the problem

Discussion

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Topic: Unit 5 Reinforcement Learning (2 weeks) :Project 5: Text-Based Game / 8. Deep Q-network