EdX and its Members use cookies and other tracking technologies for performance, analytics, and marketing purposes. By using this website, you accept this use. Learn more about these technologies in the Privacy Policy.

Audit Access Expires May 25, 2020
You lose all access to this course, including your progress, on May 25, 2020.

9. Deep Q-network

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 $Q\left(s, c\right)$ 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 point possible (graded)
Complete the function `deep_q_learning` that updates the model weights, given the transition date $\left(s, c, R\left(s, c\right), s'\right)$.

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

Generating Speech Output

Answer: 0.50

Submit You have used 0 of 6 attempts

Answers are displayed within the problem

Discussion

Hide Discussion

Topic: Unit 5 Reinforcement Learning (2 weeks) :Project 5: Text-Based Game / 9. Deep Q-network

Add a Post

Show all posts by recent activity

- Grader calculator - check which final grade you may get
  An online grader calculator for MITx 6.86x 2020 Spring run. Fill it with your own grades and it ... 2 new
  Pinned Community TA
- The Deep Q-network - the course document "To rule them all"
  If you reached this part of the project and didn't deal with the torch library close enough befo... 3
  Pinned
- I have a doubt on Linear Regression in our Closed form solution, please tell me if you spot any flaw in my derivation. 5
- Loss function
  I tried three losses: manual MSE loss (mentioned in second recitation), torch MSE loss and tor... 16
- Is agent_dqn running slow for everyone?
  I am running it on cpu and getting rate of 1.5 iterations/s.It will take a long time to run 300 ite... 7
- Loss Function
  I have used 4 of my attempts for this question, but have not been able to get a green check ... 17
- [STAFF] Share DQN code
  Dear [STAFF] would it be possible to share the code as part of the solution? It would be really ... 4

Generating Speech Output

Is it possible to provide the code for DQN after the project expires?	P.S. I got green, but is still unsure if my code is correct. i.e. I just got something running, and c...	3
Avg Reward vs Ewma Reward	So I've completed all of the questions with green check marks, but I still have no clue on the d...	1
q_value_cur_state	how to compute q_value_cur_state? any hint, please	3
DQN_learning understanding	I think I managed to get epsilon_greedy more or less consistent, but I really struggle to draw ...	3
Intuition for the linear/nonlinear approximation of the state/action spaces		

© All Rights Reserved

Generating Speech Output