UDACITY

Back to Machine Learning Engineer Nanodegree

Teach a Quadcopter How to Fly

REVIEW

CODE REVIEW 1

HISTORY

Meets Specifications

- Congratulations on completing the project successfully. This was not an easy project in any respect.
- It was good to see you spot the issue with the agent moving in x-axis.-
- Regarding the performance of the agent, you have done an overkill by using deep conv net as an approximation function.
- For suitable function approximation, I would like to highly recommend you to go through the following links:
    - http://pemami4911.github.io/blog/2016/08/21/ddpg-rl.html
    - https://towardsdatascience.com/reinforcement-learning-w-keras-openai-actor-critic-models-f084612cfd69
    - https://medium.com/@BonsaiAI/deep-reinforcement-learning-models-tips-tricks-for-writing-reward-functions-a84fe525e8e0

Define the Task, Define the Agent, and Train Your Agent!

The `agent.py` file contains a functional implementation of a reinforcement learning algorithm.

- This rubric point was already reviewed.

The `Quadcopter_Project.ipynb` notebook includes code to train the agent.

Awesome

- The code to train the agent is attached.

Plot the Rewards

A plot of rewards per episode is used to illustrate how the agent learns over time.

Awesome

- The plot of rewards is attached.

Reflections

The submission describes the task and reward function, and the description lines up with the implementation in `task.py`. It is clear how the reward function can be used to guide the agent to accomplish the task.

- This rubric point was already reviewed.

The submission provides a detailed description of the agent in `agent.py`.

- This rubric point was already reviewed.

The submission discusses the rewards plot. Ideally, the plot shows that the agent has learned (with episode rewards that are gradually increasing). If not, the submission describes in detail various attempted settings (hyperparameters and architectures, etc) that were tested to teach the agent.

- The agent is not showing gradual improvement.

- As per the rubric requirements, the agent doesn't have to absolutely learn to complete the project successfully

project successfully.

- It seems to be the case in your submission, but you have provided detail regarding the various attempted settings (hyperparameters and architectures, etc) that were tested to teach the agent.
- It is sufficient to complete this rubric point successfully.

A brief overall summary of the experience working on the project is provided, with ideas for further improving the project.

- This rubric point was already reviewed.

DOWNLOAD PROJECT

1 CODE REVIEW COMMENTS ›

RETURN TO PATH