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Implementation description

Learning Algorithm

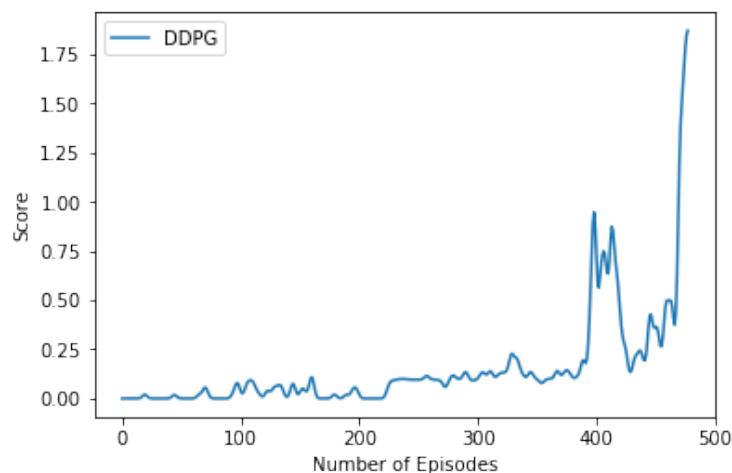
Multi DDPG agent algorithm with replay buffer is used in this project.

Configurations:

- * 2 hidden layers with 64 and 64 hidden units for both actor and critic
- * Replay batch size 128
- * Buffer size $1e7$
- * Replay without prioritization
- * Update frequency 1
- * TAU from $1e-2$
- * Learning rate $1e-4$ for actor and $1e-3$ for critic
- * Ornstein-Uhlenbeck noise

Plot of Rewards

Plot of rewards can be seen after the environment has been solved.



Environment solved in 378 episodes.

Episode 100	Average Score: 0.01	Current Score: 0.00
Episode 200	Average Score: 0.04	Current Score: 0.00
Episode 300	Average Score: 0.08	Current Score: 0.10
Episode 400	Average Score: 0.18	Current Score: 1.40
Episode 478	Average Score: 0.50	Current Score: 2.60
Environment solved in 378 episodes!		Average Score: 0.50

Ideas for Future Work

1. Build an agent that finds the best hyperparameters for an agent

2. Prioritization for replay buffer
3. Parameter space noise for better exploration
4. Test dropout for Critic