This repository | Search   Pull requests   Issues   Marketplace   Gist

yukezhu / **tensorflow-reinforce**   Watch ▾ 15   ★ Star 224   Fork 77

<> Code   ⓘ Issues **3**   Pull requests **1**   Projects **0**   Wiki   Insights ▾

Implementations of Reinforcement Learning Models in Tensorflow

reinforcement-learning   tensorflow   policy-gradient   deep-reinforcement-learning   deep-q-network   actor-critic

⊙ **39** commits   **1** branch   **0** releases   **4** contributors   ⚖ MIT

Branch: master ▾   New pull request   Create new file   Upload files   Find file   Clone or download ▾

🔲 **yukezhu** committed on **GitHub** Update README.md   Latest commit `f3f2321` Apr 14, 2017

📁 rl	update APIs	Apr 14, 2017
📄 .gitignore	Initial commit	May 23, 2016
📄 LICENSE	Initial commit	May 23, 2016
📄 README.md	Update README.md	Apr 14, 2017
📄 run_actor_critic_acrobot.py	upgrade to tensorflow v1.0 APIs	Apr 14, 2017
📄 run_cem_cartpole.py	update APIs	Apr 14, 2017
📄 run_ddpg_mujoco.py	merge API upgrade	Apr 14, 2017
📄 run_dqn_cartpole.py	upgrade to tensorflow v1.0 APIs	Apr 14, 2017
📄 run_ql_cartpole.py	upgrade to tensorflow v1.0 APIs	Apr 14, 2017
📄 run_reinforce_cartpole.py	upgrade to tensorflow v1.0 APIs	Apr 14, 2017

📖 **README.md**

Tensorflow-Reinforce

A collection of Tensorflow implementations of reinforcement learning models. Models are evaluated in OpenAI Gym environments. Any contribution/feedback is more than welcome. **Disclaimer:** These implementations are used for educational purposes only (i.e., to learn deep RL myself). There is no guarantee that the exact models will work on any of your particular RL problems without changes.

Environments

This codebase works in both Python 2.7 and 3.5. The models are implemented in Tensorflow 1.0.

Models

Model	Code	References
Cross-Entropy Method	run_cem_cartpole	Cross-entropy method
Tabular Q Learning	rl/tabular_q_learner	Sutton and Barto, Chapter 8
Deep Q Network	rl/neural_q_learner	Mnih et al.
Double Deep Q Network	rl/neural_q_learner	van Hasselt et al.
REINFORCE Policy Gradient	rl/pg_reinforce	Sutton et al.

Model	Code	References
Actor-critic Policy Gradient	rl/pg_actor_critic	Minh et al.
Deep Deterministic Policy Gradient	rl/pg_ddpg	Lillicrap et al.

License

MIT

Terms   Privacy   Security   Status   Help   Contact GitHub   API   Training   Shop   Blog   About