📖 openai / **gym**

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> 👤 **tarvos21** Fix a typo   f62e3b0 on 5 Apr
>
> **5** contributors   👤👤🟨👤🟫

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40 lines (21 sloc)   2.92 KB

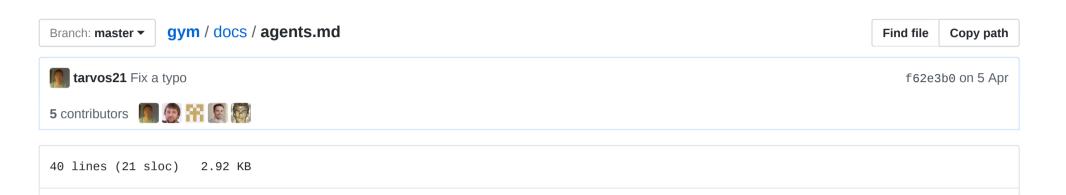
Agents

An "agent" describes the method of running an RL algorithm against an environment in the gym. The agent may contain the algorithm itself or simply provide an integration between an algorithm and the gym environments. Submit another to this list via a pull-request.

NOTICE: Evaluations submitted to the scoreboard are encouraged to link a writeup (gist) about duplicating the results. These writeups will likely direct you to specific algorithms. This agent listing is not attempting to replace writeups and will likely in time be filled with general purpose agents that will serve as a great starting place for those looking for tooling integrations or general algorithm ideas and attempts.

RandomAgent

A sample agent located in this repo at `gym/examples/agents/random_agent.py` . This simple agent leverages the environments ability to produce a random valid action and does so for each step.

cem.py

A generic Cross-Entropy agent located in this repo at `gym/examples/agents/cem.py` . This agent defaults to 10 iterations of 25 episodes considering the top 20% "elite".

TabularQAgent

Agent implementing tabular Q-learning located in this repo at `gym/examples/agents/tabular_q_agent.py` .

dqn

This is a very basic DQN (with experience replay) implementation, which uses OpenAI's gym environment and Keras/Theano neural networks. /sherjilozair/dqn

Simple DQN

Simple, fast and easy to extend DQN implementation using Neon deep learning library. Comes with out-of-box tools to train, test and visualize models. For details see this blog post or check out the repo.

AgentNet

A library that allows you to develop custom deep/convolutional/recurrent reinforcement learning agent with full integration with Theano/Lasagne. Also contains a toolkit for various reinforcement learning algorithms, policies, memory augmentations, etc.

- The repo's here: AgentNet
- A step-by-step demo for Atari SpaceInvaders

rllab

a framework for developing and evaluating reinforcement learning algorithms, fully compatible with OpenAI Gym. It includes a wide range of continuous control tasks plus implementations of many algorithms. /rllab/rllab

keras-rl

keras-rl implements some state-of-the art deep reinforcement learning algorithms. It was built with OpenAI Gym in mind, and also built on top of the deep learning library Keras and utilises similar design patterns like callbacks and user-definable metrics.