Retro Contest

We're launching a transfer learning contest that measures a reinforcement learning algorithm's ability to generalize from previous experience. In typical RL research, algorithms are tested in the same environment where they were trained, which favors algorithms which are good at memorization and have many hyperparameters. Instead, our contest tests an algorithm on previously unseen video game levels. This contest uses Gym Retro, a new platform integrating classic games into Gym, starting with 30 SEGA Genesis games.

APRIL 5, 2018
4 MINUTE READ

⤢ **CONTEST**   ⬜ **PAPER**   </> **GYM RETRO**   ⌕ **CHAT**

UPDATE: The results are in!

The OpenAI Retro Contest gives you a training set of levels from the Sonic The Hedgehog™ series of games, and we evaluate your algorithm on a test set[1] of custom levels that we have created for this contest. The contest will run from April 5th to June 5th. To get people started we're releasing retro-baselines, which shows how to run several RL algorithms on the contest tasks.

There are two secret test sets: one to populate the leaderboard while the contest is running, and another that is used only once for the final ranking. In addition, we suggest a training/test split of the provided levels, which is used for all results in the tech report, as well as the learning curves above.

Human Average   ● PPO
● Rainbow   ● PPO (Transfer)
● JERK   ● Rainbow (Transfer)
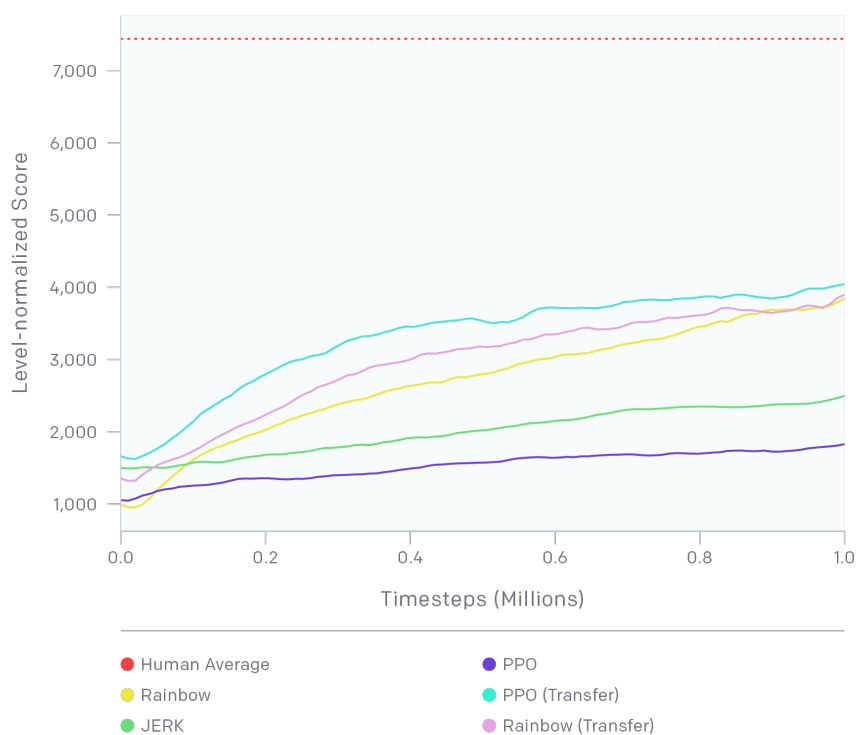
Baseline results on the Retro Contest (test set) show that RL algorithms fall far

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