

Atari Breakout with LTL_f / LDL_f Goals

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Introduction

Intro.

Non-Atari Breakout

Results of the paper and our starting point.

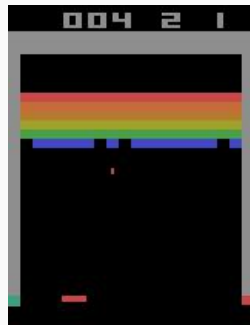
Non-Atari Breakout (6×18)

Our results on 6×18 non-Atari Breakout + video.

Atari Breakout

Introduction to Gym + ALE

Differences with non-Atari Breakout (initial hypotheses)



Q-Learning brief description.

$$Q(S_t, A_t) \leftarrow Q(S_t, A_t) + \alpha \left[R_{t+1} + \gamma \max_a Q(S_{t+1}, a) - Q(S_t, A_t) \right]$$

SARSA brief description.

$$Q(S_t, A_t) \leftarrow Q(S_t, A_t) + \alpha \left[R_{t+1} + \gamma Q(S_{t+1}, A_{t+1}) - Q(S_t, A_t) \right]$$

LTL_f/LDL_f Non-Markovian Rewards

LTL_f/LDL_f non-Markovian rewards + integration in our project.

Implementation

Algorithms.

Algorithms.

Algorithms.

Experiments

Experiments

All the experiments.

Conclusion




Conclusion.


Q&A

References i

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