Title

Abstract

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Within the field of machine learning, there exists a subfield known as reinforcement learning. In this paper, a Deep Q-learner model, a type of reinforcement learning, is selected to interpret high-dimensional sensory input with the goal of returning a value function that estimates future rewards, or actions to take. Within this paper, a deep Q-learner model, or agent, is self-taught how to play an Atari 2600 video game, Enduro, with some understanding of the game itself. This understanding of the game can be derived by the agent’s ability to repeatedly perform positive actions over a given amount of time. This paper helps emphasize the viability of reinforcement learning using deep Q-learning.