Paper summary: Reinforcement learning with unsupervised auxiliary tasks

May 5, 2022

1 Idea in few sentances

2 Explanation of the central concept

3 Methodology

4 Initial rambly notes

4.1 Abstract

In DRL one could use not just the reward signal, but other training signals to improve the process of learning to maximize reward. These can be formulated as pseudo-reward function and also maximized. An example is image reconstruction loss.

4.2 Introduction

In problems we try to tackle with reinforcement learning, the agents are observing a sensorimotor stream. The rewards are often sparse and we'd like to do something useful in their absence, for example learn how to predict the sensorimotor stream in an unsupervised manner. [Consider a baby trying to maximize redness in its field of vision].

4.3 Method

4.4 Other stuff