

The goal of this homework is to demonstrate your ability to read, analyze, evaluate and a research paper in the area of AI and learning. Towards this end you will select two of the following papers and provide their summary as well as critical reviews. The summary you relate it and expand on the material covered in the class on the topic of Reinforcement Learning. Try to position the paper in terms class of class of problems the paper tries to tackle (continuous, discrete, model based, model free, policy based, value/q-value function based, real world, simulation, on-policy, off-policy etc. You should attempt to give an example of a similar problem the algorithm described in the paper covers and how you would tackle it.) You will submit a typed report which between 2-4 pages which should include the following

1. Paper Summary. Summarize in your own words what the paper is about.
2. Claim of the paper. What are the main contributions paper proposes with respect to the state-of-art.
3. Description the method in your own words.
4. Evaluation methodology and conclusions.
5. Additional example problem where the same algorithm was applied. This can be problem of your choice or another problem in the literature. Briefly describe the differences and specifics, of how the methods should be adjusted.

Here is a list of suggested papers. In case you would like to read another paper of your interest and include it with the report please check with me ahead of time.

Asynchronous methods for deep reinforcement learning.

Mnih, Badia, Mizra et. al. (<http://proceedings.mlr.press/v48/mniha16.pdf>)

Learning transferable policies for monocular reactive control.

Daftry, Bagnell, Hebert. (<https://arxiv.org/pdf/1608.00627.pdf>)

Recurrent models of visual attention.

Mnih, Hees, Graves, Kavukcuoglu. (<https://arxiv.org/pdf/1406.6247.pdf>)