

Assignment 8

for NeuroComputing/ Theoretical Neuroscience 2014

1. Use an attractor network as an autoassociator to recognize noisy version of the letter patterns in file **pattern1**, which we used before in Assignment 6. How many letters can you memorize?
2. In the simulation of Section 9.6.3, five patterns are presented sequentially to a reinforcement learner, while only the second on third pattern are rewarded. Consider the case with discount factor of $\gamma=0.8$. Modify the learning tasks so that the second pattern is rewarded with a reward value of 0.3, the third pattern is rewarded with a reward value of 0.7 and the fourth pattern is rewarded with reward value 1. What is the state with the highest value? Explain why.

Send a text file to prof6508@cs.dal.ca with subject line A8 by Friday, April 4, before 4pm.