

Assignment A9: Multi-agent Markov Game Agents

**This is an Optional assignment
& will replace an earlier assignment**

*CS 6380
Fall 2014*

Assigned: 8 November 2014

Due: 17 December 2014 (1pm)

For this problem, handin a lab report pdf (include name, date, assignment and class number in pdf) which attempts to duplicate the results in the paper by Claus and Boutilier (Claus1998-Markov-game-RL.pdf in class resources web page) and compares independent learners to joint action learners using reinforcement learning (RL). You are to implement each algorithm and provide figures (like Figures 1 through 5) along with a description of the algorithms and statistics.

Describe the algorithms in the method section, and verify their correctness.

You should handin the report pdf as well as the source code used in the study. The code should conform to the style requested in the class materials (no matter what the language).

In addition, please turn in a hardcopy of the report in class before 1pm on December 17, 2014.

Write a lab report in the format (please do not deviate from this format!) described in the course materials.

Discuss the statistical framework to establish a confidence interval on the means, and the hypothesis test.