

Assignment 4: Model-Based RL

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1 Problem 1

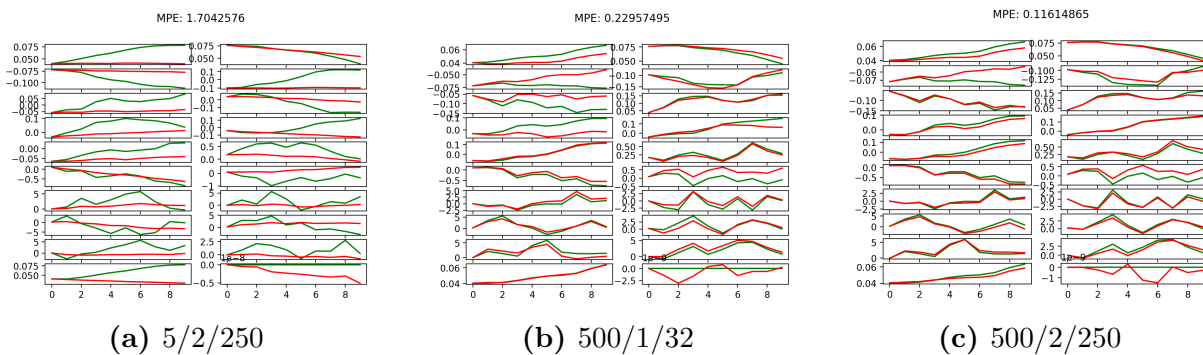


Figure 1: Settings: Number of train steps per iteration/Number of layers/Size of layers

The experiment with the highest three hyperparameters performs the best, likely because the models have not reach the point of overfitting yet and therefore the most powerful network with the most training is going to perform the best.

2 Problem 2

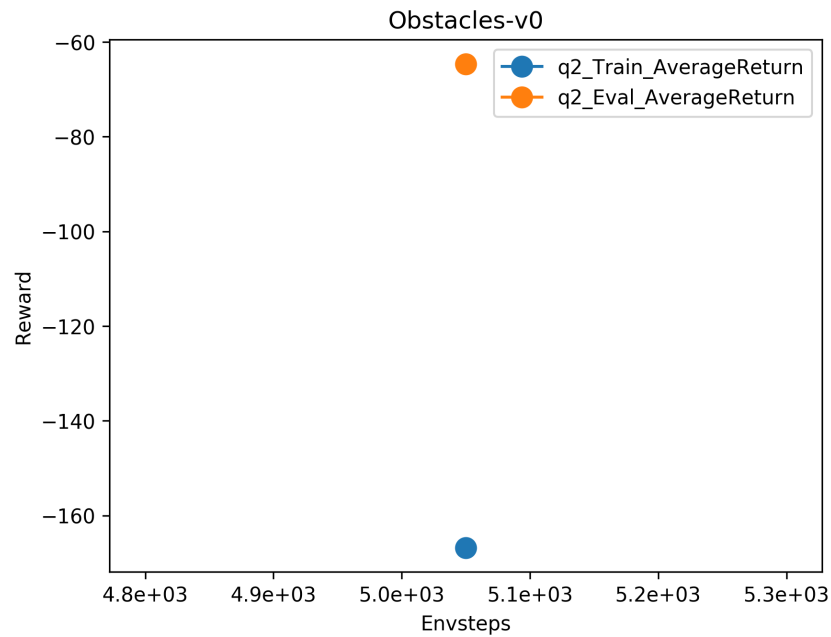


Figure 2: Train_AverageReturn & Eval_AverageReturn

3 Problem 3

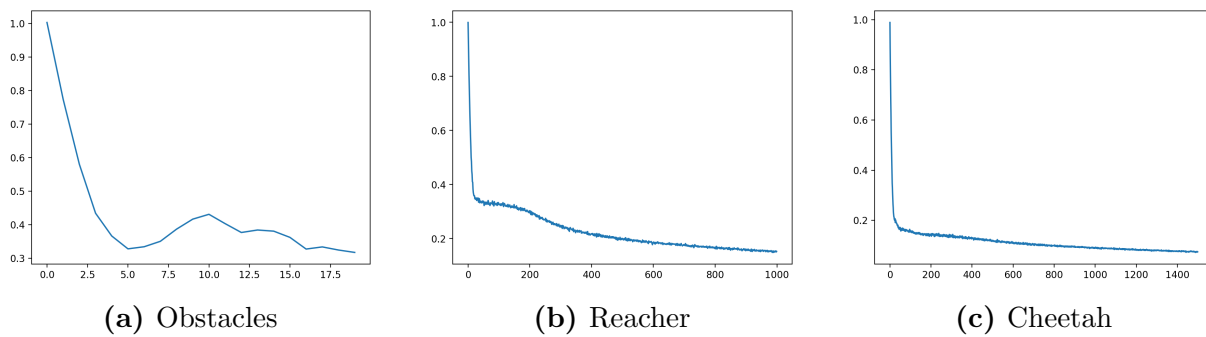


Figure 3: Performance under different environments

4 Problem 4

- effect of ensemble size

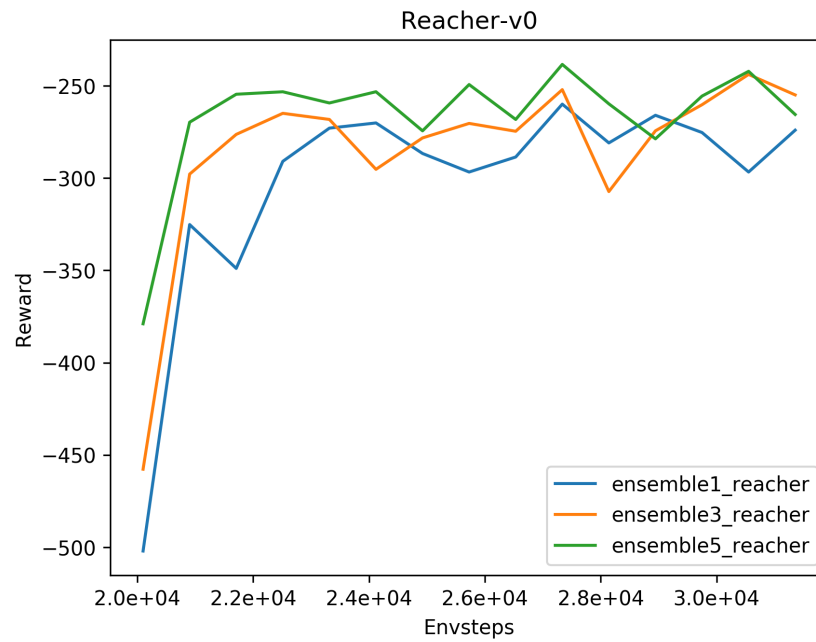


Figure 4: Eval_AverageReturn under different ensemble size

- effect of number of candidate action sequences

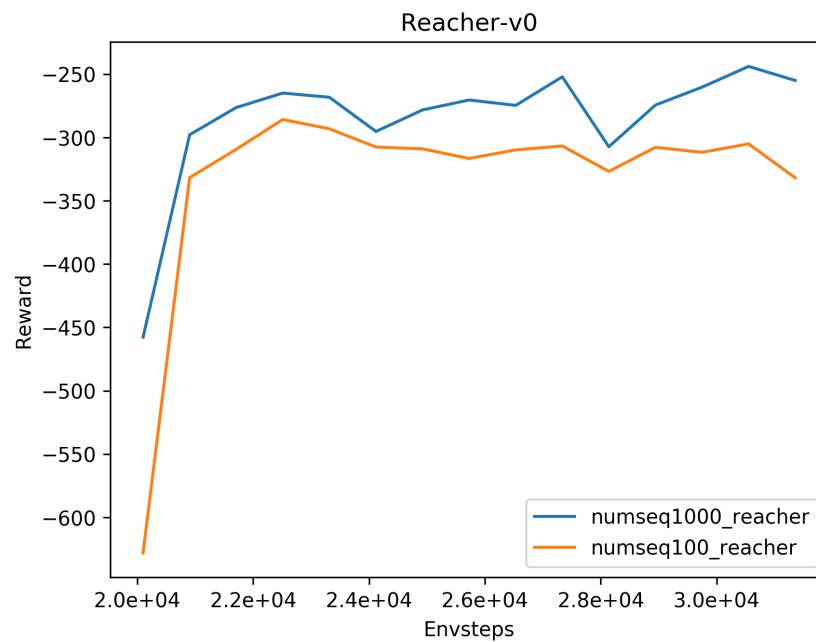


Figure 5: Eval_AverageReturn under different number of candidate action sequences

- effect of planning horizon

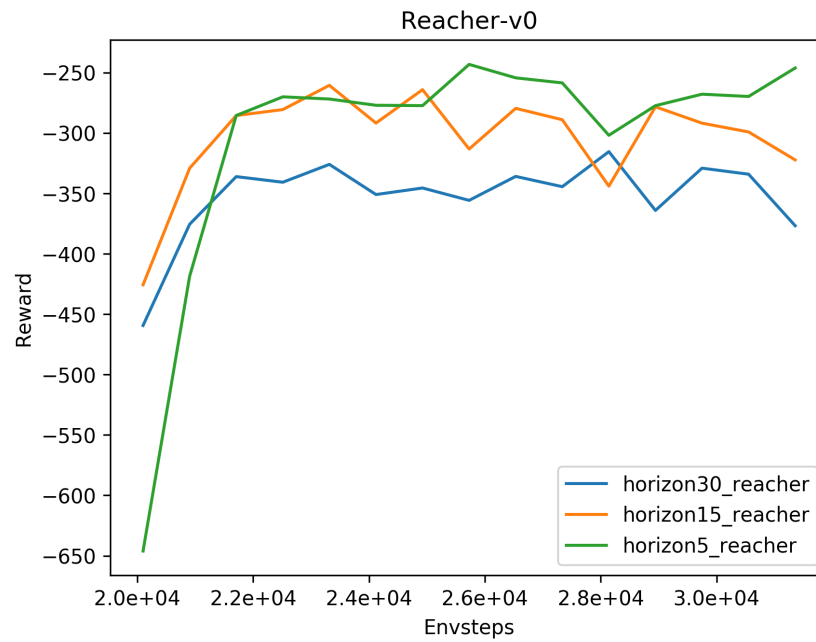


Figure 6: Eval AverageReturn under different planning horizon