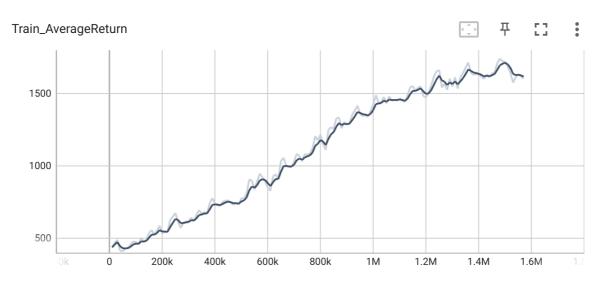
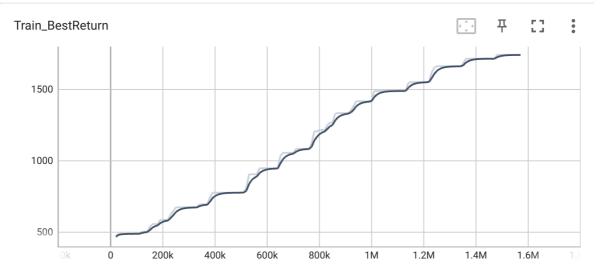
## HW3

# **Question 1: DQN**

AverageReturn:



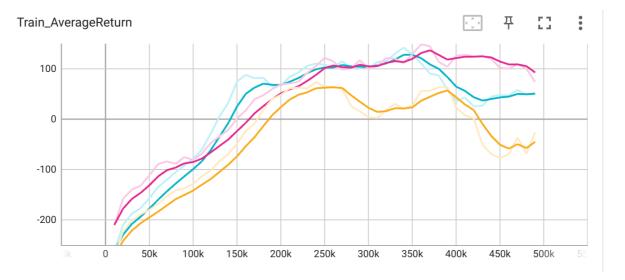
#### BestReturn:



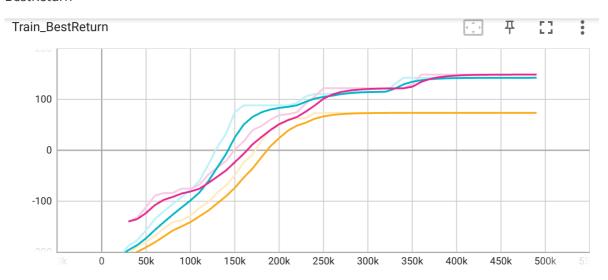
# **Question 2: DDQN**

### For DQN:

AverageReturn:

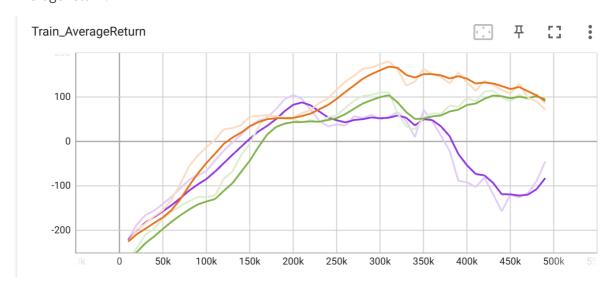


#### BestReturn



### For DDQN:

#### AverageReturn:



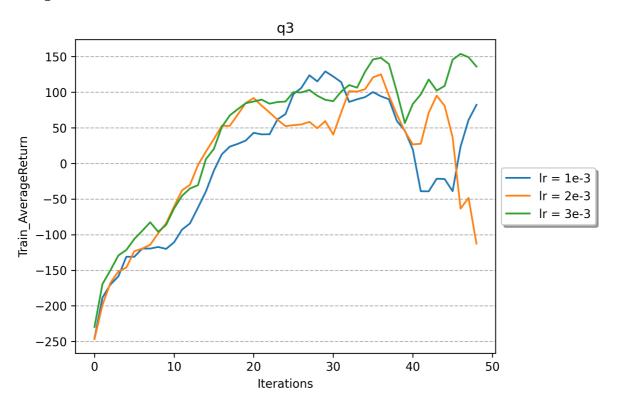
BestReturn:

'Train\_AverageReturn'

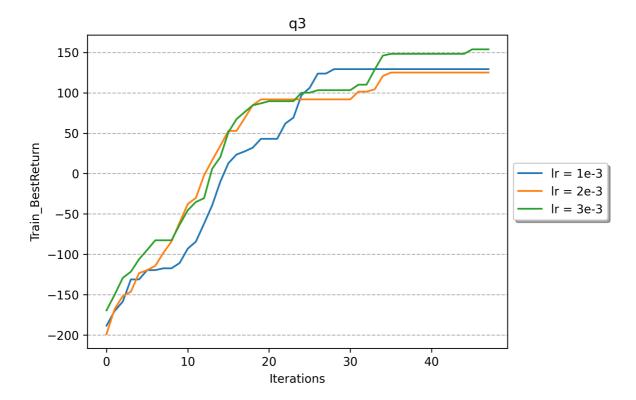
# **Question 3: Experiment**

For learning rate = 1e-3, 2e-3, 3e-3:

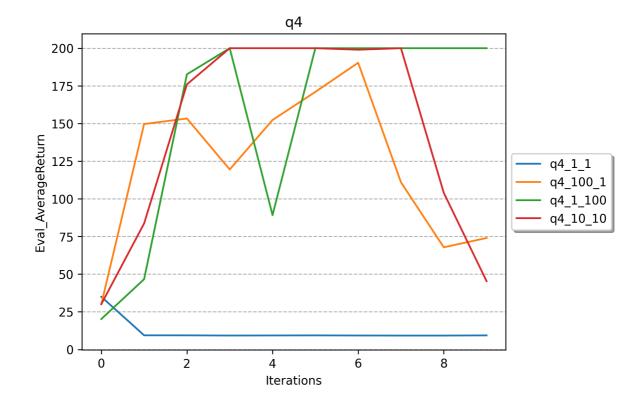
AverageReturn:



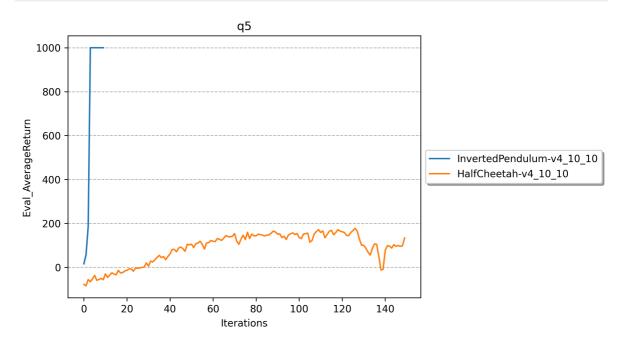
BestReturn:



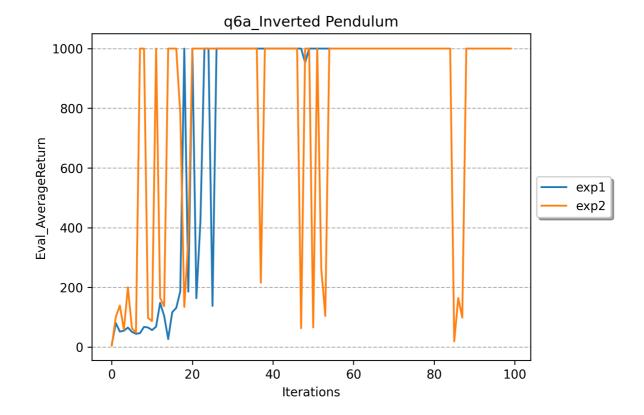
## **Question 4: Actor-Critic**



## **Question 5: AC on more difficult task**

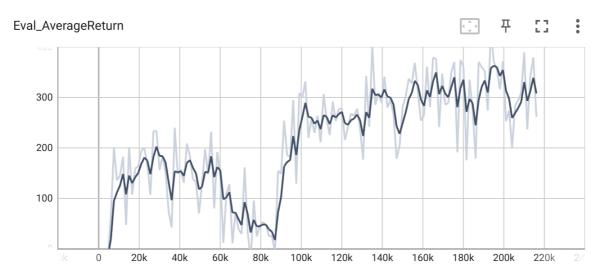


**Question 6: Soft Actor-Critic** 

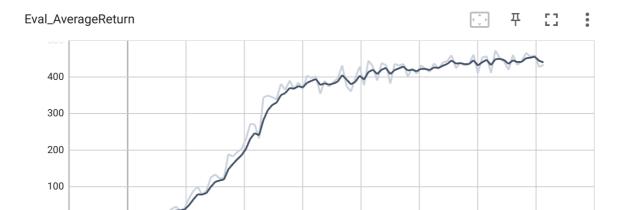


### **Half Cheetah:**

Before:



After fixing the critical bug:



80k

100k

120k

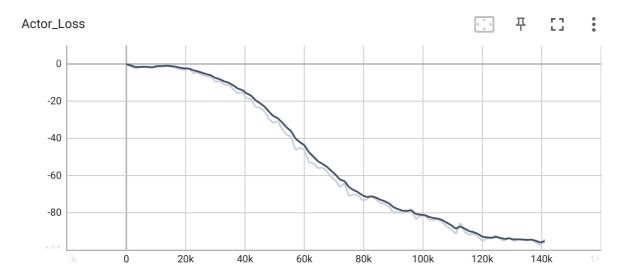
140k

0

20k

0

40k



60k