



# Joint RL meeting

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# Outline

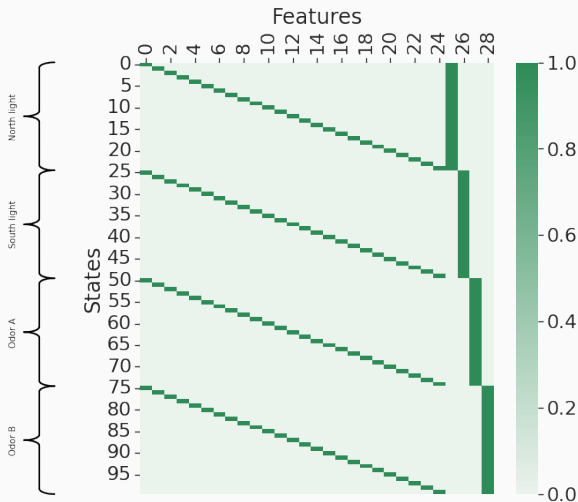
1. Reducing the number of features in function approximation
2. Deep Reinforcement Learning first draft

# Outline

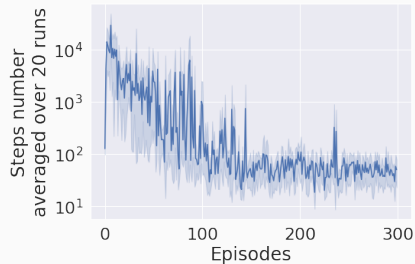
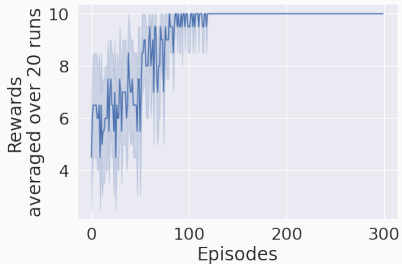
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# Features matrix – allocentric agent

→ Reduced from 100 to 25 locations + 4 cues

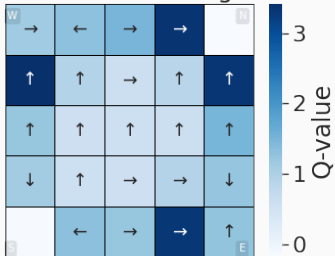


# Rewards and steps – allocentric agent

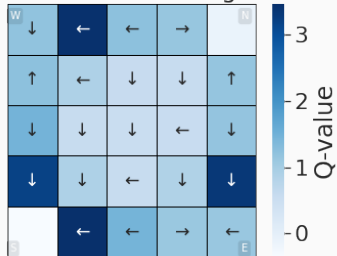


## Q-values learned – allocentric agent

## Pre odor - North light



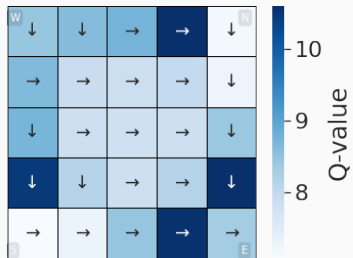
## Pre odor - South light



Post odor - Odor A

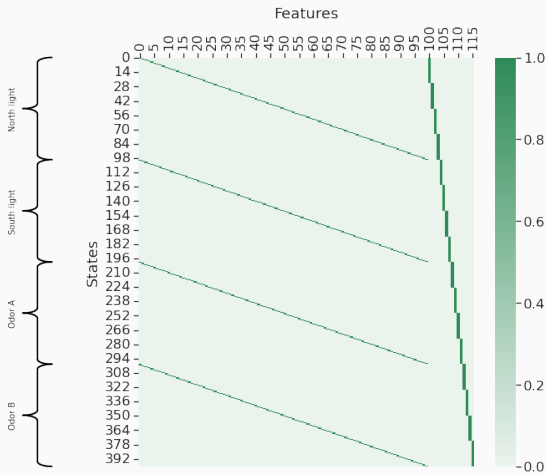


Post odor - Odor B

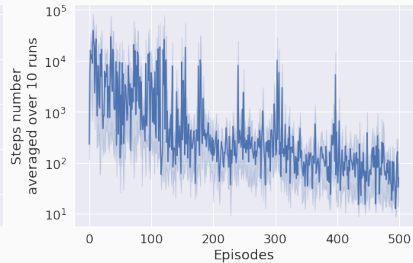
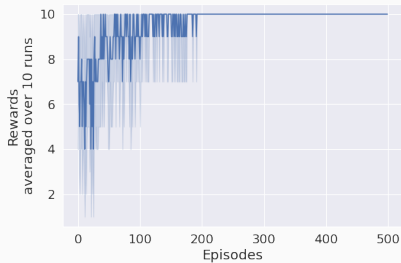


# Features matrix – egocentric agent

→ Reduced from 400 to 100 locations (25 locations x 4 head directions) + 16 cues (4 cues x 4 head directions)

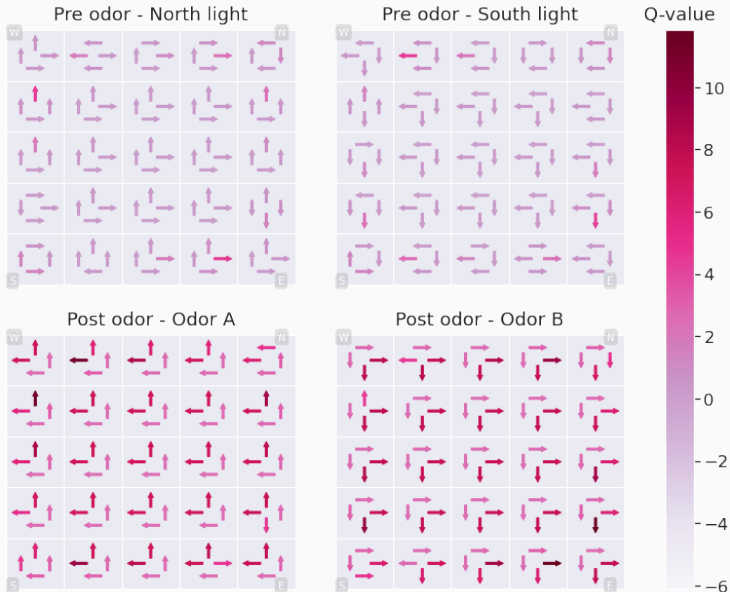


# Rewards and steps – egocentric agent





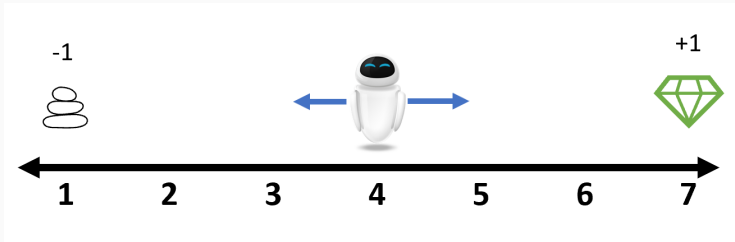
# Q-values learned – egocentric agent



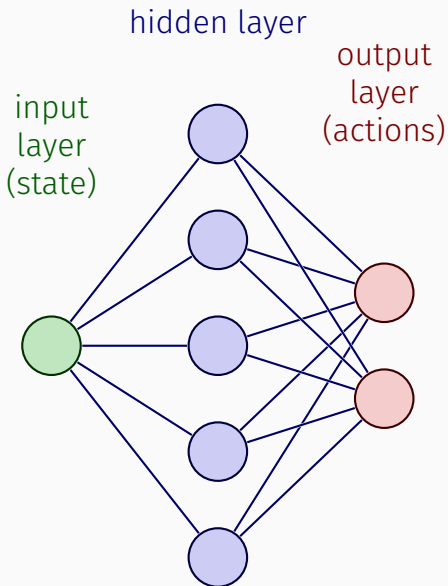
# Outline

1. Reducing the number of features in function approximation
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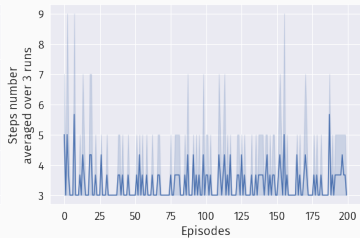
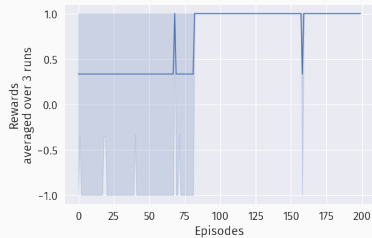
# Toy task : Random Walk 1D



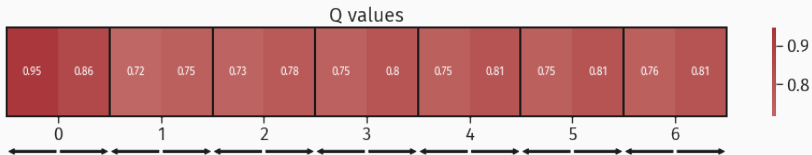
# Network used



# Rewards and steps



# Q-values learned



Questions ?