HW2

Question 1 (45 points)

For Multimodality data fusion, what are the three problems? Please describe each one, including methods and pros and cons.

Question 2 (15 points)

Please give a real-life example, not the same as in discussed in class, of each topic listed below regarding using IoT in Transportation.

Assisted Driving

Dynamic Navigation

Optimized Maintenance

Expanded Ridesharing

Fleet Management

Question 3:

a). Please describe what is a Markov Decision Process, what are the components of MDP (10 points).

b). Please describe the definition of reinforcement learning and give a real-life example (not any example discussed in the class) (10 points)

c). Please described the two model-based RL (Value iteration and policy iteration) as well as the model-free RL (Q learning) (20 points).