

Categorize the following as supervised learning, reinforcement learning, unsupervised learning, or not machine learning: A social network’s AI uses existing tagged photos of people to identify when those people appear in new photos. \* 1/1

- ☐ Unsupervised learning
- ☒ Supervised learning
- ☐ Not an example of machine learning
- ☐ Reinforcement learning

Imagine a regression AI that makes the following predictions for the following 5 data points. What is the total L2 loss across all of these data points (i.e., the sum of all the individual L2 losses for each data point)? \* 1/1

For data point 1, the true output is 2 and the AI predicted 4. For data point 2, the true output is 4 and the AI predicted 5. For data point 3, the true output is 4 and the AI predicted 3. For data point 4, the true output is 5 and the AI predicted 2. For data point 5, the true output is 6 and the AI predicted 5.

- ☐ 0
- ☐ 4
- ☐ 5
- ☐ 8
- ☒ 16
- ☐ 19
- ☐ 21
- ☐ 64

If Hypothesis 1 has a lower L1 loss and a lower L2 loss than Hypothesis 2 \* 1/1 on a set of training data, why might Hypothesis 2 still be a preferable hypothesis?

- ☒ Hypothesis 1 might be the result of overfitting.

- ☐ Hypothesis 1 might be the result of regularization.
- ☐ Hypothesis 1 might be the result of cross-validation.
- ☐ Hypothesis 1 might be the result of regression.
- ☐ Hypothesis 1 might be the result of loss.

In the  $\epsilon$ -greedy approach to action selection in reinforcement learning, which of the following values of  $\epsilon$  makes the approach identical to a purely greedy approach? \* 1/1

- ☒  $\epsilon = 0$
- ☐  $\epsilon = 0.25$
- ☐  $\epsilon = 0.5$
- ☐  $\epsilon = 0.75$
- ☐  $\epsilon = 1$

Comments, if any

.....

此表单是在 CS50 内部创建的。