



# Logistics Regression- 2 quiz

8 out of 8 correct

1. Which of the following is a technique for tuning hyperparameters that exhaustively searches a specified subset of the hyperparameter space?

- ☐ Randomize search cv
- ☐ Data leakage
- ☐ Confusion matrix
- ☒ Grid search cv

**Explanation:** Grid search cv is a technique that exhaustively searches a specified subset of the hyperparameter space.

2. Which of the following is a technique for tuning hyperparameters that randomly samples a specified subset of the hyperparameter space?

- ☐ Data leakage
- ☐ Confusion matrix
- ☒ Randomize search cv
- ☐ Grid search cv

**Explanation:** Randomize search cv is a technique that randomly samples a specified subset of the hyperparameter space.

3. What is data leakage?

- ☐ When data is accidentally or intentionally leaked to the public



- ☐ When the test data is used to train the model
- ☒ When the training data contains information that would not be available in the real world
- ☐ None of the above

**Explanation:** Data leakage occurs when the training data contains information that would not be available in the real world, leading to overfitting and inaccurate results.

4. Which of the following is a tool used to evaluate the performance of a classification model?

- ☐ Grid search cv
- ☐ Randomize search cv
- ☐ Data leakage
- ☒ Confusion matrix

**Explanation:** A confusion matrix is a tool used to evaluate the performance of a classification model.

5. What is the precision of a model?

- ☐ The number of true positives divided by the number of false positives
- ☐ The number of true positives divided by the sum of true positives and false negatives
- ☒ The number of true positives divided by the sum of true positives and false positives
- ☐ The number of true negatives divided by the sum of true negatives and false positives

**Explanation:** Precision measures the proportion of true positives out of all predicted positives.

6. What is the recall of a model?

- ☒ The number of true positives divided by the sum of true positives and false negatives
- ☐ The number of true positives divided by the sum of true positives and false positives
- ☐ The number of true positives divided by the number of false positives
- ☐ The number of true negatives divided by the sum of true negatives and false positives

**Explanation:** Recall measures the proportion of true positives out of all actual positives.

7. What is the F1 score of a model?

- ☐ The weighted average of precision and recall
- ☒ The harmonic mean of precision and recall
- ☐ The arithmetic mean of precision and recall
- ☐ None of the above

**Explanation:** The F1 score is a weighted average of precision and recall, with more emphasis on the smaller value.

8. Which of the following hyperparameters can be tuned using grid search cv for a logistic regression classifier?

- ☐ C
- ☐ Penalty
- ☒ L1 ratio
- ☐ n\_neighbors

**Explanation:** The hyperparameters that can be tuned using grid search cv for a logistic regression classifier are C and the choice of penalty ('l1' or 'l2').

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