Week Activity - Machine learning 👨‍💻 👩‍💻

1 play · 24 players

أكاديمية طويق
TUWAIQ ACADEMY

A public kahoot

Questions (20)

1 - Quiz

when a model learns the details and noise in the training data

20 sec

- Overfitting ✓
- Underfitting ✗
- Outlier detection ✗
- Good model ✗

2 - Quiz

What are the variables that the model learns during training?

20 sec

- Hyperparameter ✗
- Hyperparameter Tuning ✗
- Parameters ✓
- Learning rate ✗

3 - Quiz

What is the maximum splits could be applied to the dataset for modeling?

20 sec

- 4 ✗
- 5 ✗
- 3 ✓
- 2 ✗

4 - Quiz

$\frac{1}{2}\sum_{i=1}^{n}|yi-\overline{y}i|$

20 sec

- MSE ✗
- MAE ✓
- RMSE ✗
- R - squared ✗

5 - True or false

Using cross-validation can safeguard against underfitting more effectively than using a simple train/test split.

20 sec

- True ✗
- False ✓

6 - Quiz

When train error is very small and val/test error is large, its called:

20 sec

- Good model ✗
- Underfitting ✗
- Overfitting ✓
- Bad model ✗

7 - Quiz

When train score is small and val/test score is small too, its called:

20 sec

- Good model ✗
- Underfitting ✓
- Overfitting ✗
- Lucky split ✗

8 - Quiz

When train score is high and val/test score is higher, its called:

20 sec

- Underfitting ✗
- Overfitting ✗
- Lucky split ✓
- Good model ✗

9 - Quiz

Which of the following is the primary reason for using cross-validation in machine learning?

20 sec

- To reduce the size of the dataset for faster processing ✗
- increase the complexity of the model to prevent underfitting ✗
- averages results across multiple splits for reliable performance estimates. ✓
- ensure the model is only trained on the smallest possible subset of data ✗

10 - Quiz

What is the primary purpose of regularization in machine learning?

20 sec

- increase the training accuracy of the model ✗
- penalize complex models to protect them from overfitting ✓
- improve the speed of the training process ✗
- simplify the data preprocessing steps ✗

11 - Quiz

Which regularization adds a penalty equal to the square of the weights associated with each feature variable.

20 sec

- Ridge Regression ✓
- Lasso Regression ✗
- Elastic Net Regression ✗
- Ordinary Least Squares Regression ✗

12 - True or false

Lasso can force certain features coefficients to be zero, while Ridge does not

20 sec

- True ✓
- False ✗

13 - Quiz

What type of Classification data point can be assigned multiple classes?

20 sec

- Binary Classification ✗
- Logistic Classification ✗
- Multiclass Classification ✗
- Multilabel Classification ✓

14 - Quiz

It is an S-shaped curve function that maps any input to a value between 0 and 1.

20 sec

- Softmax ✗
- Binary function ✗
- Sigmoid ✓
- Linear function ✗

15 - Quiz

a metric that measures how often a machine learning model correctly predicts the outcome.

20 sec

- Recall ✗
- Accuracy ✓
- Precision ✗
- F1-score ✗

16 - Quiz

What does TP do?

20 sec

- shows the number of correctly identified negative cases. ✗
- shows the number of incorrectly predicted negative cases. ✗
- shows the number of correctly identified positive cases. ✓
- shows the number of incorrectly predicted positive cases. ✗

17 - Quiz

What shows the share of true positive predictions made by the model out of all positive samples in the dataset.

20 sec

- Recall ✓
- Accuracy ✗
- Precision ✗
- R-Squared ✗

18 - Quiz

nodes are formed following the split of the root node, where further decisions on data division are made. Called

20 sec

- Root node ✗
- Decision nodes ✓
- Leaf nodes ✗
- Sub-tree nodes ✗

19 - Quiz

The endpoints of a decision tree where no further splitting occurs. Called:

20 sec

- Root node ✗
- Branch/Sub-tree ✗
- Decision Node ✗
- Leaf Nodes ✓

20 - True or false

Information gain is a measure of disorder or impurity in a node.

20 sec

- True ✗
- False ✓