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|---|---|
| **Started on** | Thursday, 3 October 2024, 1:02 PM |
| **State** | Finished |
| **Completed on** | Thursday, 3 October 2024, 1:17 PM |
| **Time taken** | 15 mins 2 secs |
| **Marks** | 12.00/20.00 |
| **Grade** | **6.00** out of 10.00 (**60**%) |

**Question 1**

Complete

Mark 1.00 out of 1.00

The K-fold method is implemented in external validation.

- True
- False

**Question 2**

Complete

Mark 0.00 out of 1.00

In the current script we only implement the k-NN classifier

- True
- False

**Question 3**

Complete

Mark 0.00 out of 1.00

Is the dataset balanced? Are all the classes equally populated?

- True
- False

**Question 4**

Complete

Mark 1.00 out of 1.00

The classification rate in external validation can be bigger than in internal validation because the training model considers more samples.

- True
- False

**Question 5**

Complete

Mark 0.00 out of 1.00

The dimension of the pattern vectors for each patient is:

Answer: 10000

**Question 6**

Complete

Mark 1.00 out of 1.00

In the Nearest Centroid Classifier we need to optimize the number of neighbours to compute the centroid.

- True
- False

**Question 7**

Complete

Mark 1.00 out of 1.00

For k-NN, we optimize the value of k in external validation.

- True
- False

**Question 8**

Complete

Mark 1.00 out of 1.00

In order to properly partition the dataset, the script samples not the data but the indexes.

- True
- False

**Question 9**

Not answered

Marked out of 1.00

The variable mz_prost in only the x-axis for the mass spectra, but it not contains information.

- True
- False

**Question 10**

Complete

Mark 1.00 out of 1.00

The lab does not do a dedicated data partition per class.

- ○ True
- ◉ False

**Question 11**

Complete

Mark 1.00 out of 1.00

We have three measurements per patient, that we average to reduce unwanted variability.

- ○ True
- ◉ False

**Question 12**

Complete

Mark 1.00 out of 1.00

The dataset uses Mass Spectrometry measurements

- ◉ True
- ○ False

**Question 13**

Complete

Mark 0.00 out of 1.00

The lab calculates the centroids only for two dimensions that are plotted.

- ◉ True
- ○ False

**Question 14**

Not answered

Marked out of 1.00

In the Nearest Centroid Classifier we need to optimize the number of neighbours to compute the centroid.

- ○ True
- ○ False

**Question 15**

Complete

Mark 1.00 out of 1.00

In the current lab the provided script implements a binary classifier

- ○ True
- ◉ False

**Question 16**

Complete

Mark 0.00 out of 1.00

The purpose of the logarithmic transformation is to make the data smaller.

- ◉ True
- ○ False

**Question 17**

Complete

Mark 1.00 out of 1.00

We use the R package caret for implement the k-fold data partition.

- ◉ True
- ○ False

**Question 18**

Complete

Mark 1.00 out of 1.00

The lab uses Hold-out for external validation

- ◉ True
- ○ False

**Question 19**

Complete

Mark 1.00 out of 1.00

The most populated class is:

- ○ a. Bening hypertrophia
- ◉ b. prostatic cancer
- ○ c. Control

**Question 20**

Not answered

Marked out of 1.00

It is a good practice to calculate the confidence interval of the classification rate to take into account the uncertainty of the estimated value with finite data.

- True
- False