

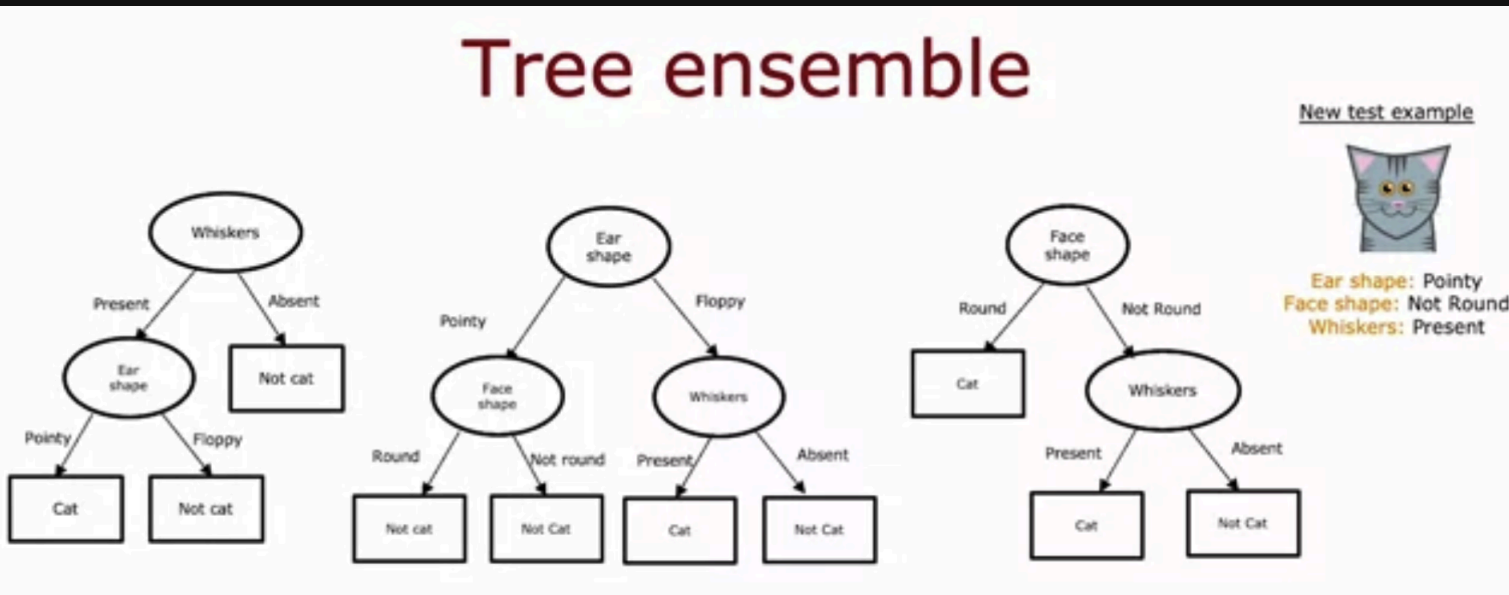
✔ Congratulations! You passed!

Grade received 100%

Latest Submission Grade 100%

To pass 80% or higher

Go to next item



1. For the random forest, how do you build each individual tree so that they are not all identical to each other?

1 / 1 point

- ☐

Train the algorithm multiple times on the same training set. This will naturally result in different trees.
- ☐

If you are training B trees, train each one on 1/B of the training set, so each tree is trained on a distinct set of examples.
- ☐

Sample the training data without replacement
- ☒

Sample the training data with replacement and select a random subset of features to build each tree

✔ Correct

Correct. You can generate a training set that is unique for each individual tree by sampling the training data with replacement. The random forest algorithm further avoids identical trees by randomly selecting a subset of features when building the tree ensemble.

2. You are choosing between a decision tree and a neural network for a classification task where the input x is a 100x100 resolution image. Which would you choose?

1 / 1 point

- ☐

A decision tree, because the input is unstructured and decision trees typically work better with unstructured data.
- ☐

A decision tree, because the input is structured data and decision trees typically work better with structured data.
- ☒

A neural network, because the input is unstructured data and neural networks typically work better with unstructured data.
- ☐

A neural network, because the input is structured data and neural networks typically work better with structured data.

✔ Correct

Yes!

3. What does sampling with replacement refer to?

1 / 1 point

- ☐

Drawing a sequence of examples where, when picking the next example, first remove all previously drawn examples from the set we are picking from.
- ☐

It refers to a process of making an identical copy of the training set.
- ☐

It refers to using a new sample of data that we use to permanently overwrite (that is, to replace) the original data.
- ☒

Drawing a sequence of examples where, when picking the next example, first replacing all previously drawn examples into the set we are picking from.

✔ Correct

Yes!