**RANDOM FOREST ALGORITHM**

Random forest is a flexible, easy to use [machine learning algorithm](https://builtin.com/data-science/introduction-to-machine-learning) that produces, even without hyper-parameter tuning, a great result most of the time. It is also one of the most used algorithms.

Random forest is a [supervised learning algorithm](https://builtin.com/data-science/supervised-learning-python). The "forest" it builds, is an ensemble of decision trees, usually trained with the “bagging” method. The general idea of the bagging method is that a combination of learning models increases the overall result.

Put simply: random forest builds multiple decision trees and merges them together to get a more accurate and stable prediction.

One big advantage of random forest is that it can be used for both classification and regression problems, which form the majority of current machine learning systems.

Random forest is used in different situations such as for classifications and regression task. It provides higher accuracy through cross validation. Random forest classifier will handle the missing values and maintain the accuracy of a large proportion of data.

Random forests or random decision forests are an ensemble learning method for classification, regression and other tasks that operates by constructing a multitude of decision trees at training time.

## Example: Jackie wants to decide where to go during one-year vacation, so he asks the people who know him best for suggestions. The first friend he seeks out asks him about the likes and dislikes of his past travels. Based on the answers, he will give Jackie some advice.

This is a typical decision tree algorithm approach. Jackie's friend created rules to guide his decision about what he should recommend, by using Jackie's answers.

Afterwards, Jackie starts asking more and more of his friends to advise him and they again ask him different questions they can use to derive some recommendations from. Finally, Jackie chooses the places that where recommend the most to him, which is the typical random forest algorithm approach.