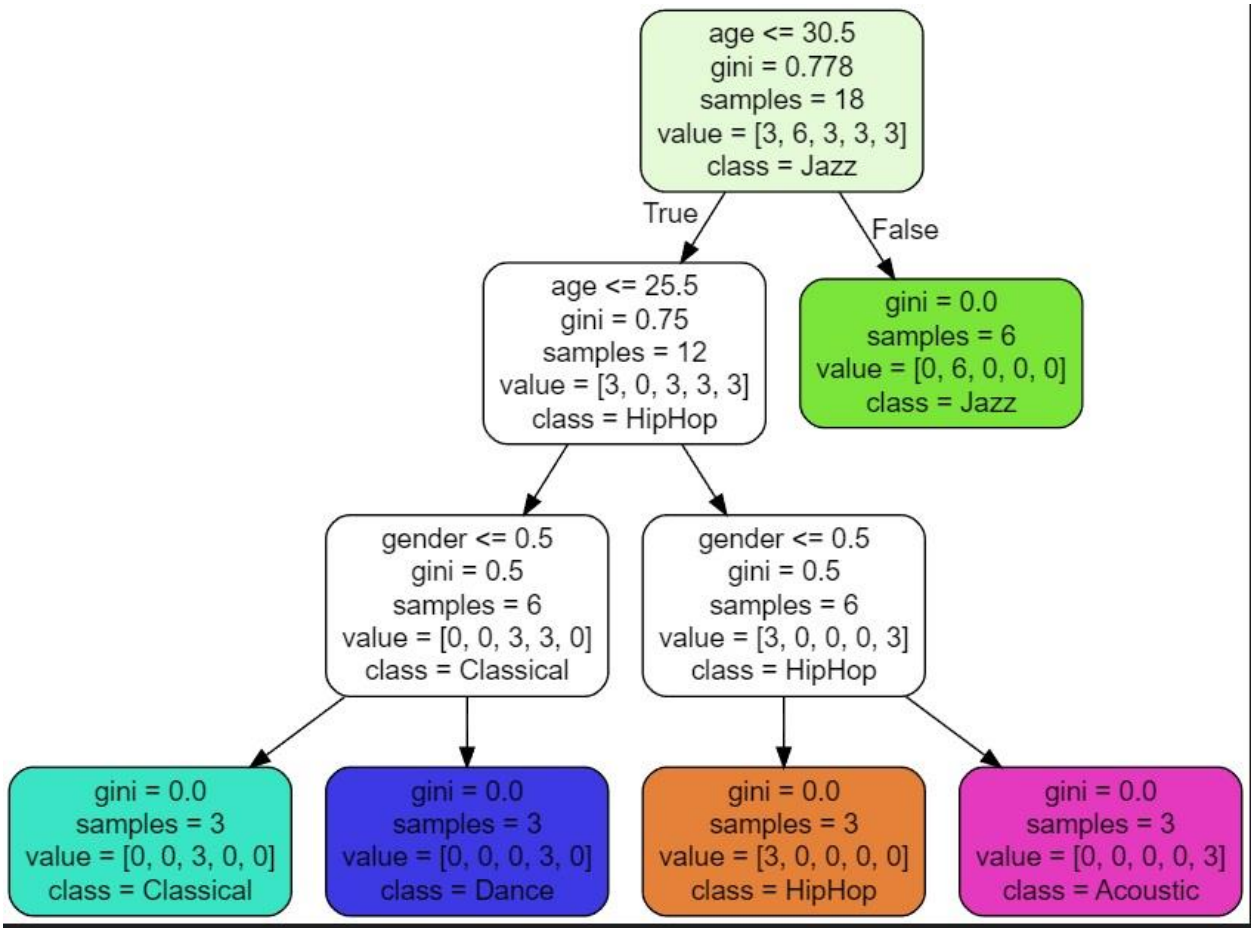

Map of “music-recommender” decision tree.

The importance of a feature is computed as the (normalized) total reduction of the criterion brought by that feature. It is also known as the Gini importance. The higher, the more important the feature. The Gini impurity is computed by summing pairwise products of the probabilities of choosing from a set of *i* items with *N* classes, and of miscategorising them as $\sum_{k \neq i} p_k$:

$$I(p) = \sum_{i=1}^{N} \left(p_i \sum_{k \neq i} p_k \right) = \sum_{i=1}^{N} (p_i[1 - p_i]) = \sum_{i=1}^{N} (p_i - {p_i}^2) = 1 - \sum_{i=1}^{N} ({p_i}^2)$$

The decision tree is simple with only 2 parameters.