Input: *examples, attributes, parent_examples*
Output: a tree
`/* DECISION-TREE-LEARNING(`*`examples, attributes, parent_examples`*`)` `*/`

if *examples* is empty **then return**
    PLURALITY-VALUE(*parent_examples*)
else if all *examples* have the same classification **then return**
    the classification
else if *attributes* is empty **then return**
    PLURALITY-VALUE(*examples*)
else
    $A \leftarrow \text{argmax}_{\text{a} \in attributes}\text{IMPORTANCE}(\text{a}, examples)$
    tree $\leftarrow$ a new decision tree with root test A
    for each value v_k of A **do**
        $exs \leftarrow \{\text{e} : \text{e} \in examples \textbf{ and } e.A = v_k\}$
        subtree $\leftarrow$ DECISION-TREE-LEARNING(*exs, attributes - A, examples*)
        add a branch to *tree* with label $(A = v_k)$ and subtree *subtree*
    return *tree*

Algorithm 1: The decision-tree learning algorithm