

Build Tree (examples, depth) ← where is examples?

// Test to see if there is a leaf and we need to return

if we don't have examples

return node(1, NA, NA)

if we have,

return node(majority, NA, NA)

This is the case we have leaf.

→ if we don't have leaf:

For (each attribute) // 0, 1, ..., numAttr - 1

For (each threshold value) // {1, 2, ..., 9}

Current IG = InfoGain (examples, current attri, current threshold).

if this is the best IG (biggest)

update best attribute

update best threshold

// split existing examples into 2

Left example = instances where $\text{attr. Value} \leq \text{Threshold value}$

Right example = instances where $\text{attr. Value} > \text{Threshold value}$

check majority Label

node = new TreeNode

Node.left = buildTree (Left example, depth + 1)

Node.right = buildTree (Right example, depth + 1)

classify (cur Node)

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