# **Decision Tree Report**

- \*Ratio → training-size: testing-size
- \*Regularization
  - Max-size of tree
  - Min-size of subset

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# In case

- Max-size of tree = 5
- Min-size of subset = 1

Ratio  $\rightarrow$  25:75

Accuracy = 87.76758409785933

Ratio  $\rightarrow$  30:70

Accuracy = 91.14754098360656

Ratio  $\rightarrow$  40:60

Accuracy = 91.95402298850574

Ratio  $\rightarrow$  50:50

Accuracy = 91.28440366972477

Ratio  $\rightarrow$  60:40

Accuracy = 93.67816091954023

Ratio  $\rightarrow$  70:30

Accuracy = 91.6030534351145

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#### <u>In case</u>

- Max-size of tree = 8
- Min-size of subset = 3

Ratio  $\rightarrow$  25:75

Accuracy = 89.90825688073394

Ratio  $\rightarrow$  30:70

Accuracy = 87.54098360655738

Ratio  $\rightarrow$  40:60

Accuracy = 88.88888888888889

Ratio  $\rightarrow$  50:50

Accuracy = 93.11926605504587

Ratio  $\rightarrow$  60:40

Accuracy = 95.40229885057471

Ratio  $\rightarrow$  70:30

Accuracy = 90.07633587786259

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#### In case

- Max-size of tree = 15
- Min-size of subset = 5

Ratio  $\rightarrow$  25:75

Accuracy = 92.35474006116208

Ratio  $\rightarrow$  30:70

Accuracy = 87.54098360655738

Ratio  $\rightarrow$  40:60

Accuracy = 92.72030651340997

Ratio  $\rightarrow$  50:50

Accuracy = 93.11926605504587

Ratio  $\rightarrow$  60:40

Accuracy = 95.40229885057471

Ratio  $\rightarrow$  70:30

Accuracy = 91.6030534351145

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#### <u>In case</u>

- Max-size of tree = 25
- Min-size of subset = 7

Ratio  $\rightarrow$  25:75

Accuracy = 92.35474006116208

Ratio  $\rightarrow$  30:70

Accuracy = 89.8360655737705

Ratio  $\rightarrow$  40:60

Accuracy = 92.72030651340997

Ratio  $\rightarrow$  50:50

Accuracy = 91.74311926605505

Ratio  $\rightarrow$  60:40

Accuracy = 93.67816091954023

Ratio  $\rightarrow$  70:30

Accuracy = 94.65648854961832

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## <u>In case</u>

- Max-size of tree = 3
- Min-size of subset = 7

Ratio  $\rightarrow$  25:75

Accuracy = 92.35474006116208

Ratio  $\rightarrow$  30:70

Accuracy = 91.80327868852459

Ratio  $\rightarrow$  40:60

Accuracy = 92.72030651340997

Ratio  $\rightarrow$  50:50

Accuracy = 91.74311926605505

Ratio  $\rightarrow$  60:40

Accuracy = 93.67816091954023

Ratio  $\rightarrow$  70:30

Accuracy = 93.12977099236642

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## <u>In case</u>

- Max-size of tree = 25
- Min-size of subset = 5

Ratio  $\rightarrow$  25:75

Accuracy = 92.35474006116208

Ratio  $\rightarrow$  30:70

Accuracy = 87.54098360655738

Ratio  $\rightarrow$  40:60

Accuracy = 92.72030651340997

Ratio  $\rightarrow$  50:50

Accuracy = 93.11926605504587

Ratio  $\rightarrow$  60:40

Accuracy = 95.40229885057471

Ratio  $\rightarrow$  70:30

Accuracy = 91.6030534351145