

the **Big**
DATA
THEORY



PREDICTION ON SOCCER

The Big Data Theory

R. Manetti, G. Martini, N. Ozgoli, M. Razzaghoori



DO YOU
REMEMBER?



Our data



Our task

SCORING

Accuracy

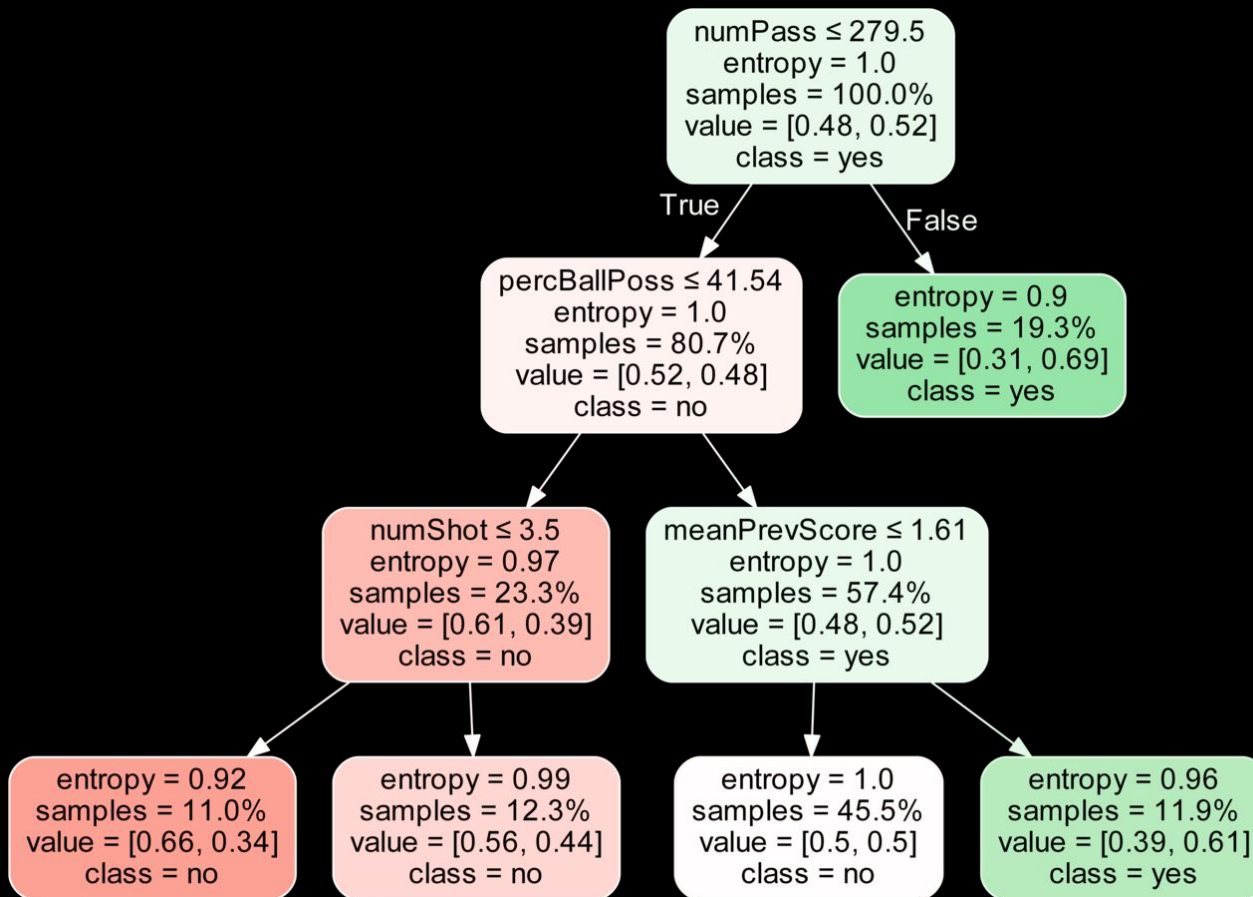
T1
0.78

T2
0.54

T3
0.25

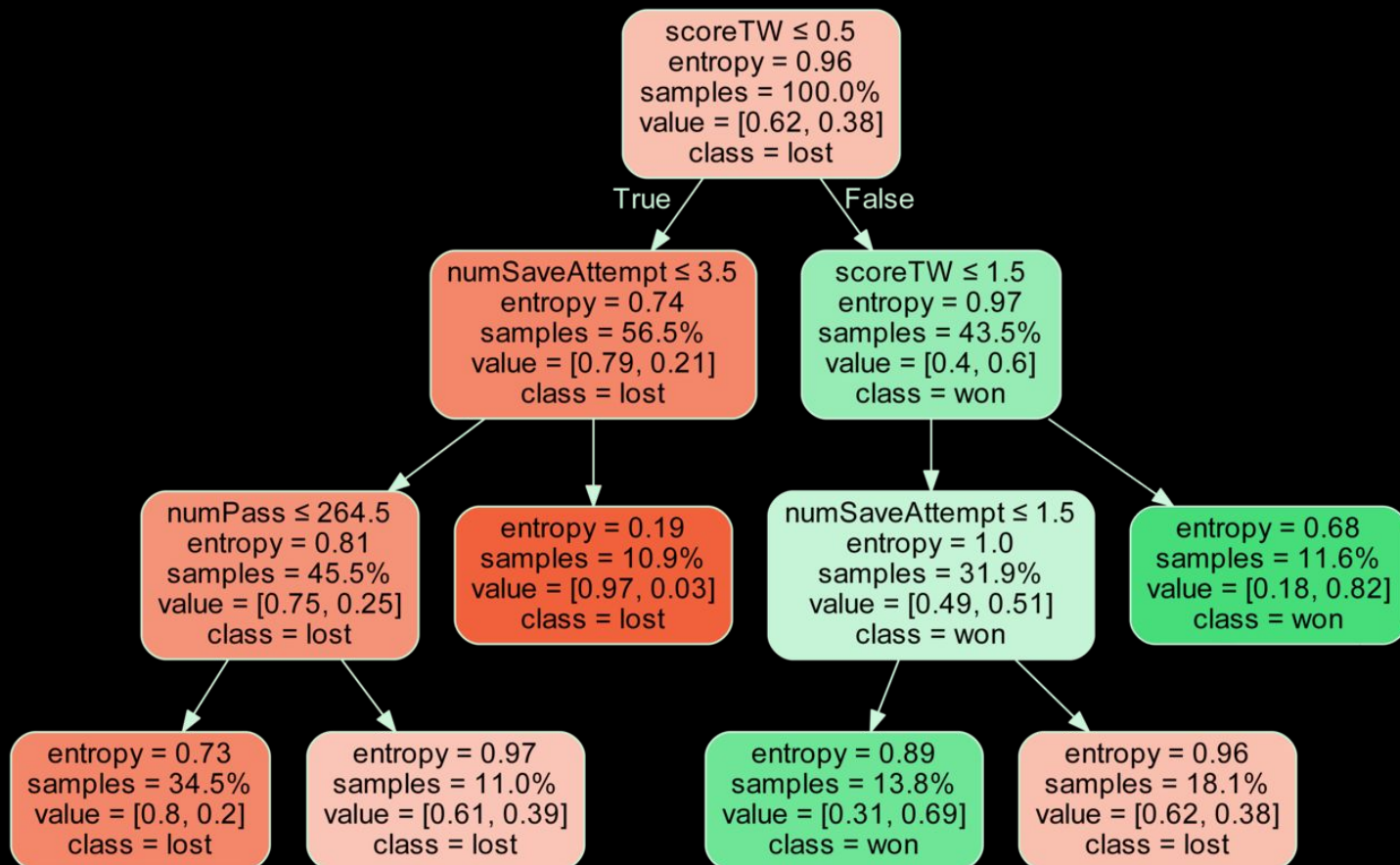
THE MODEL

Did score in second half?



THE MODEL

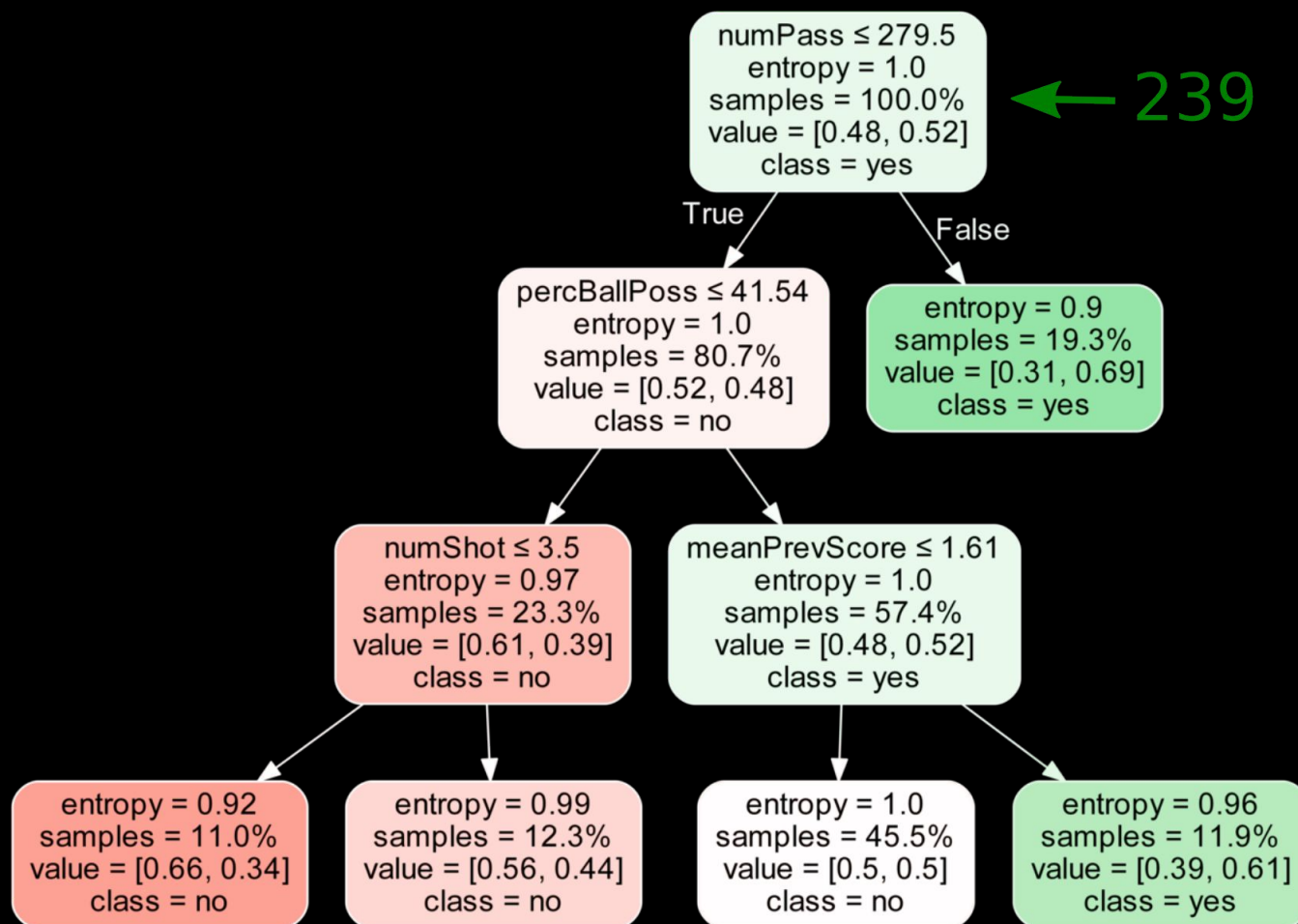
Outcome

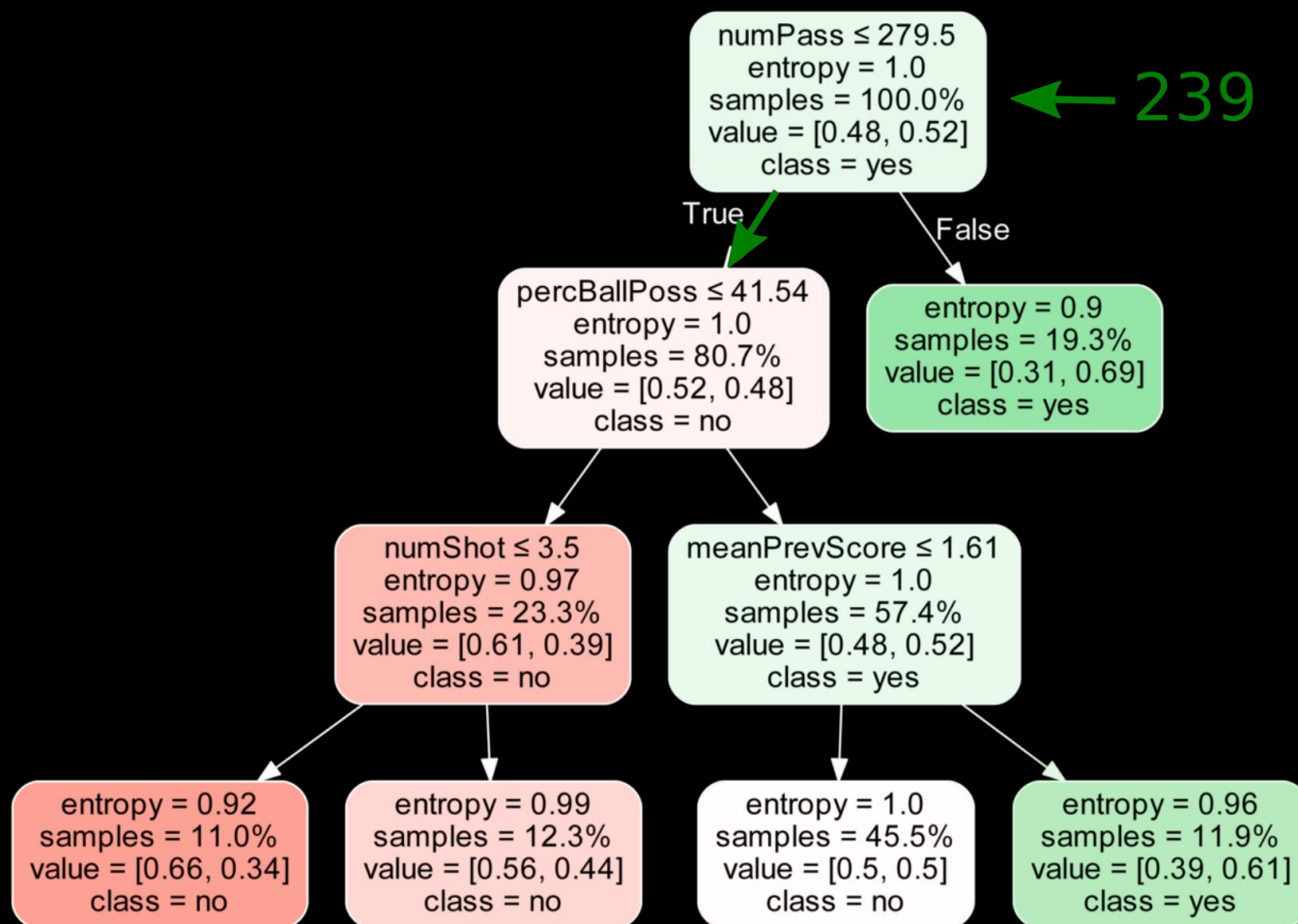


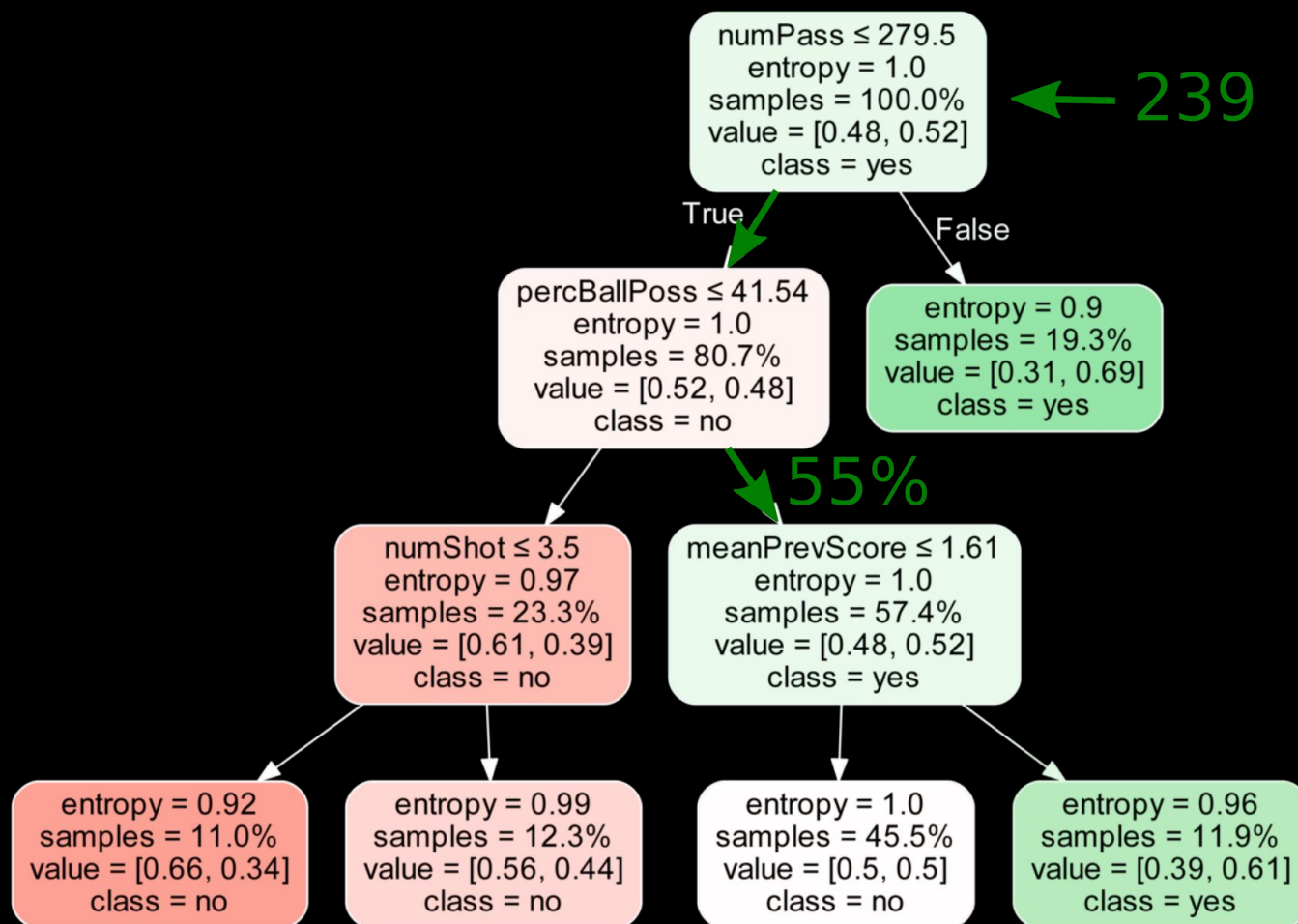
EXPLAINABILITY

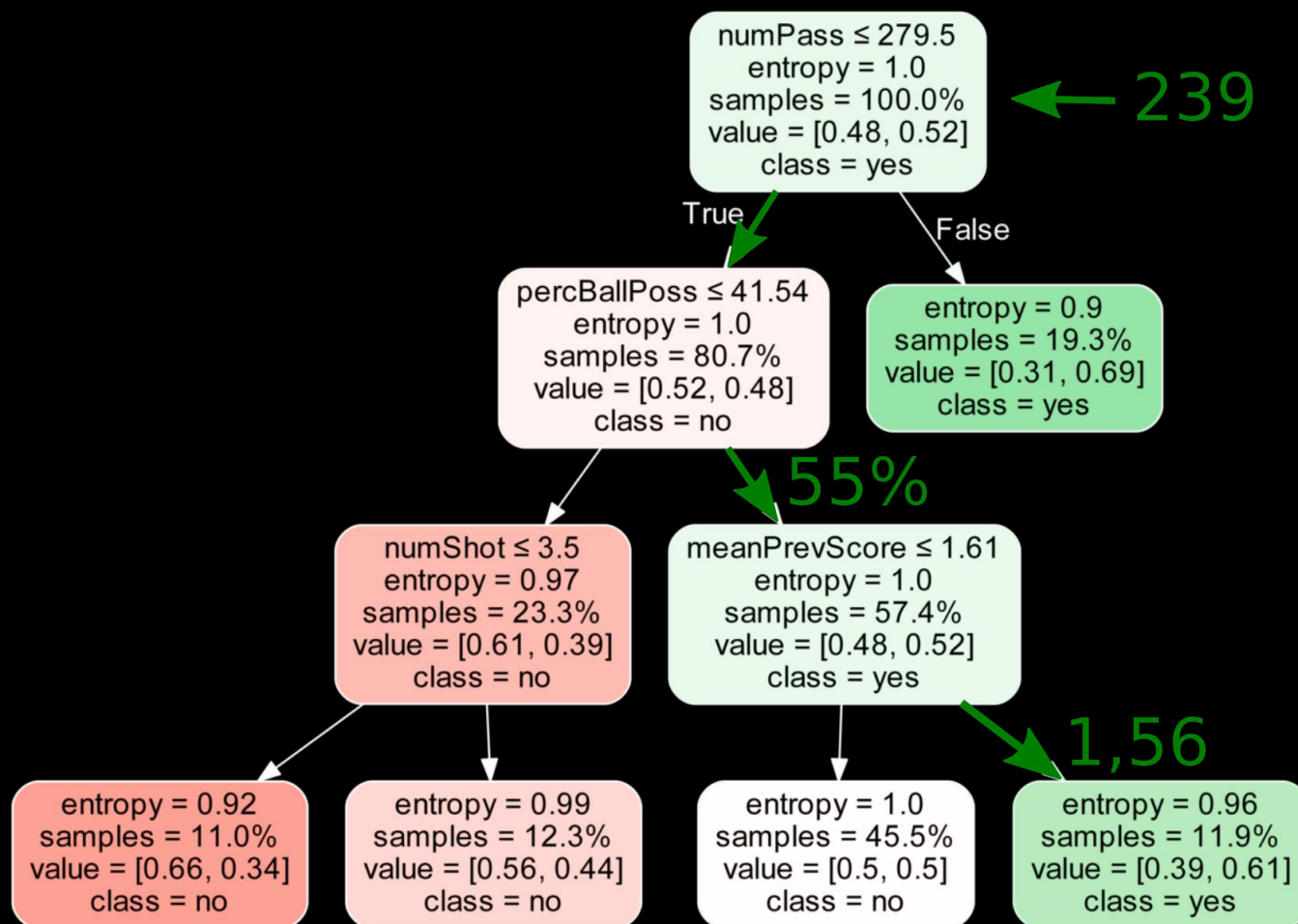
Global

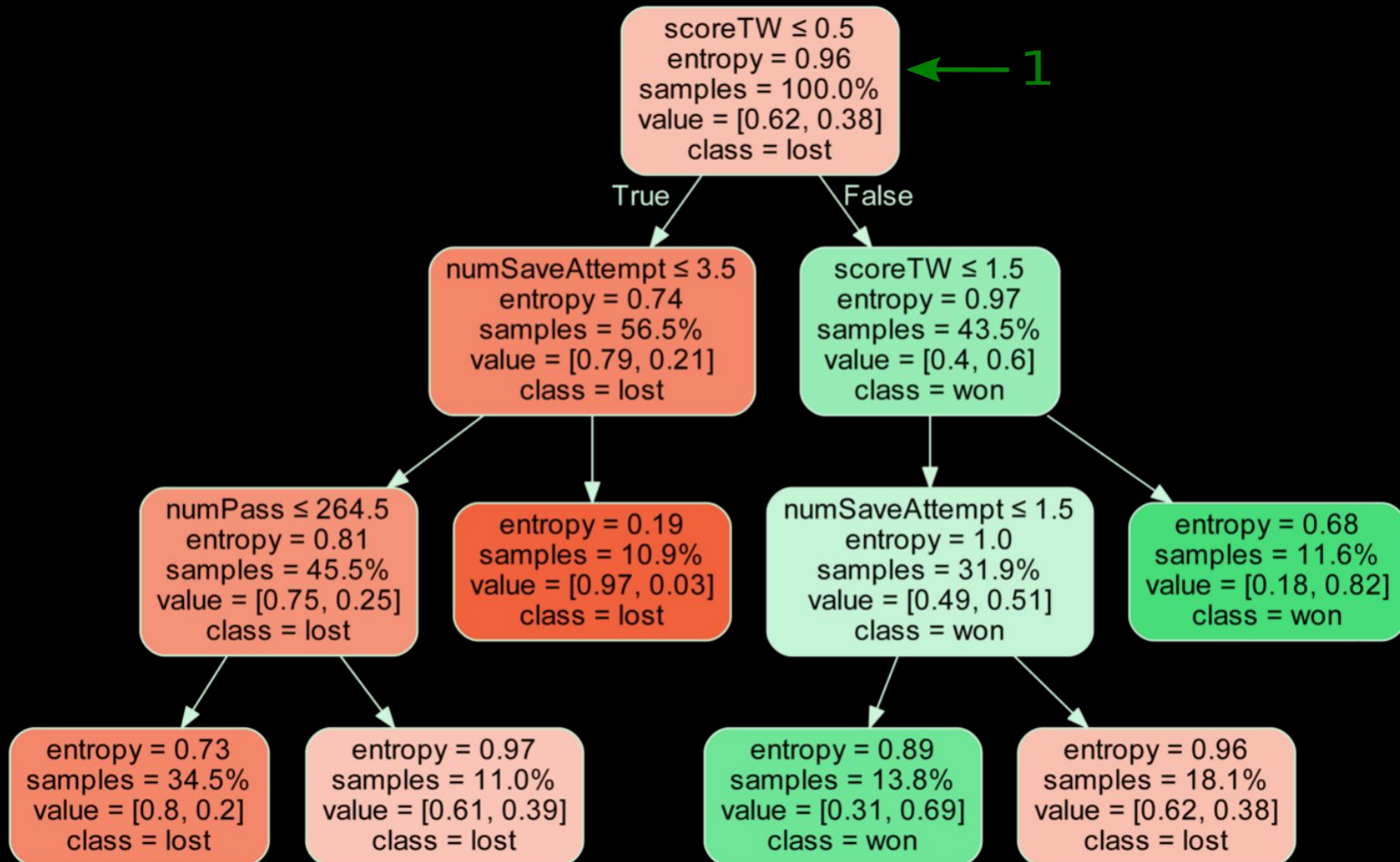
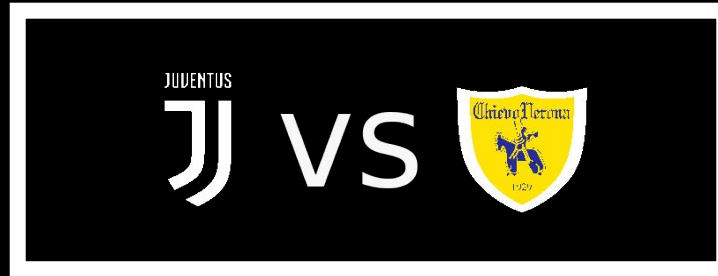
Local

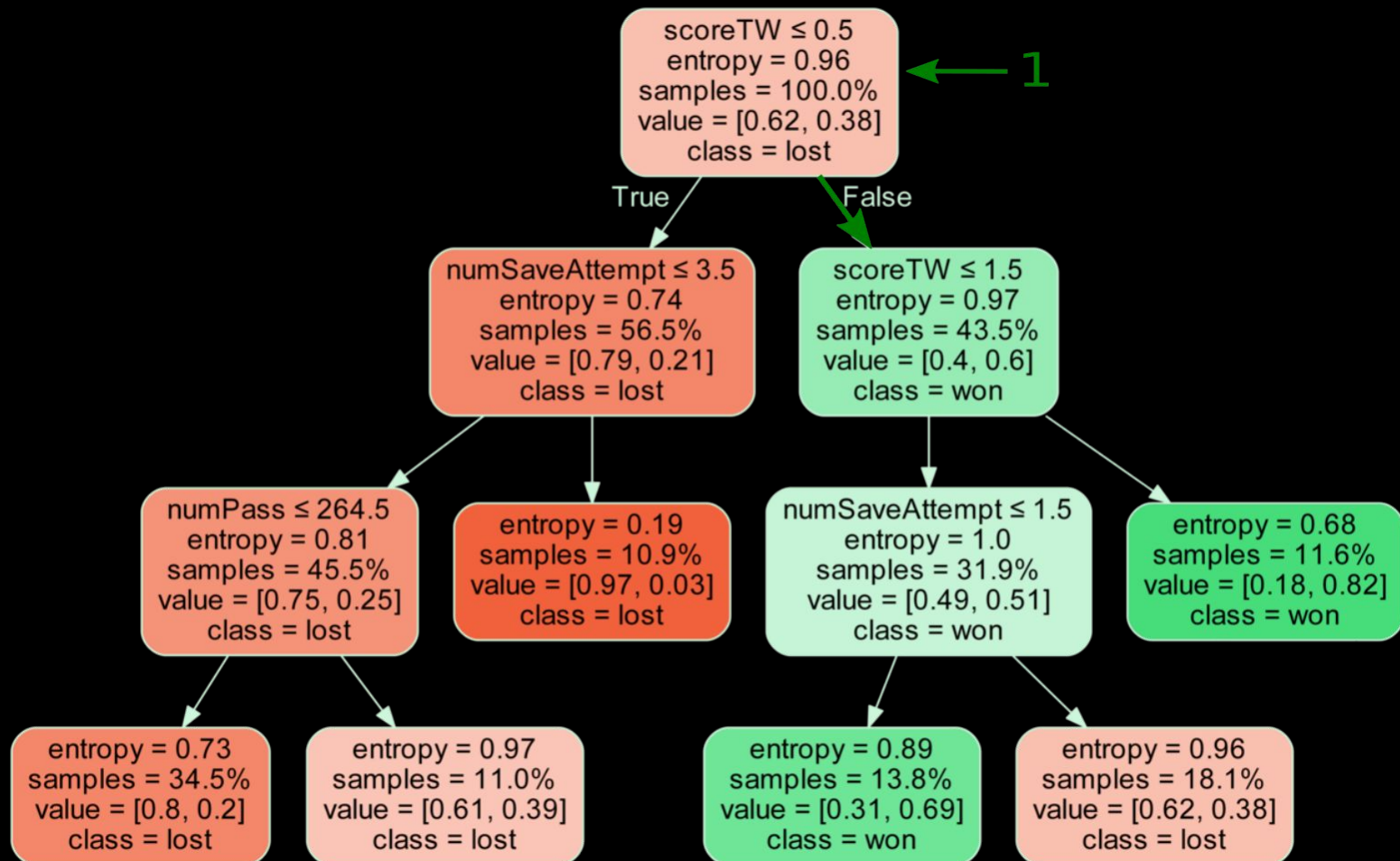
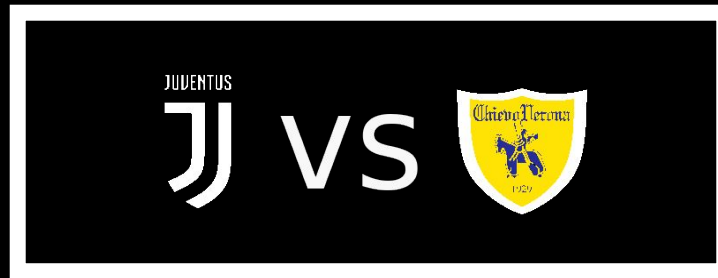


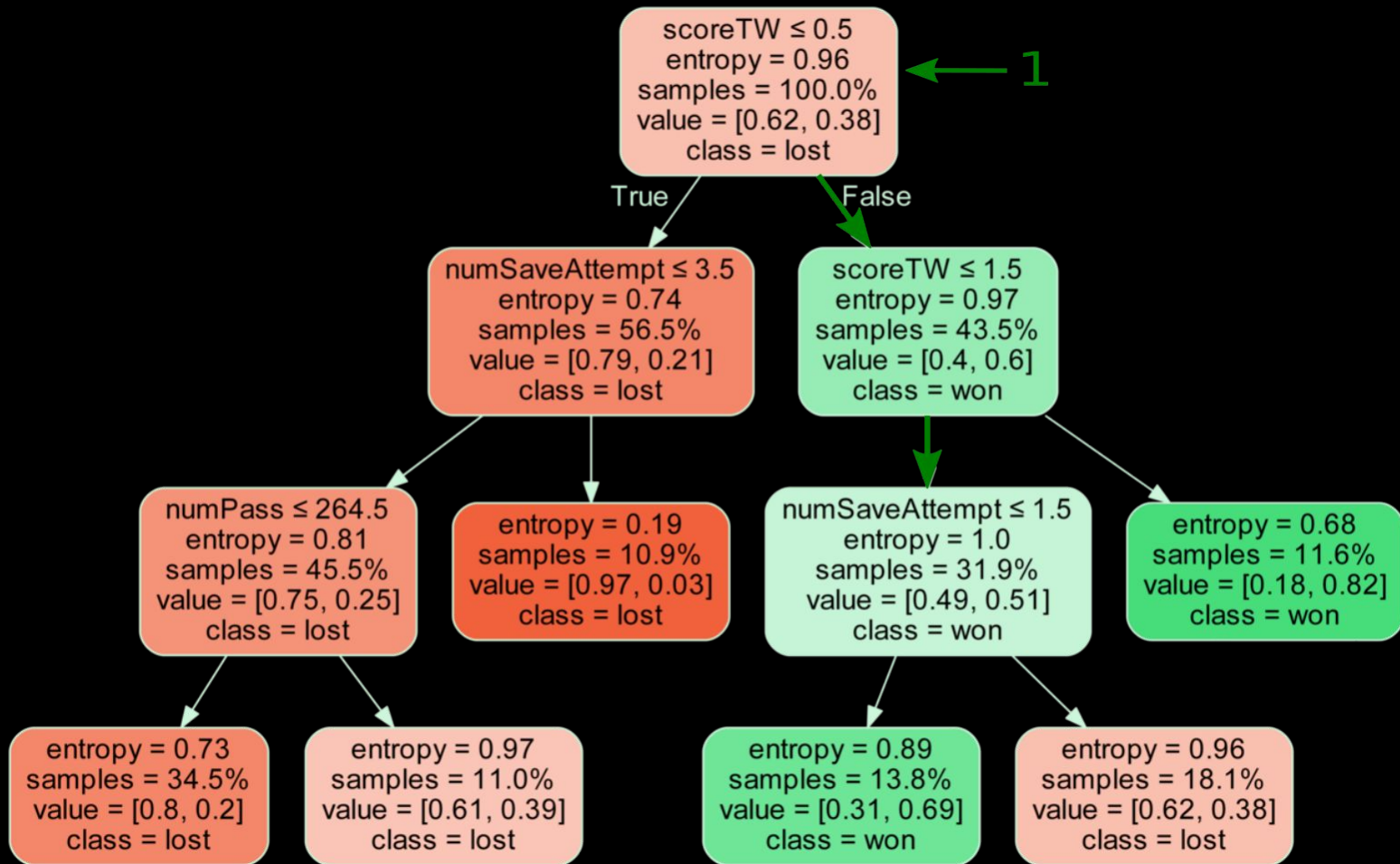
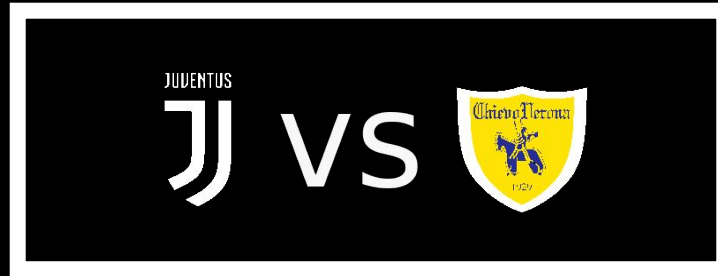


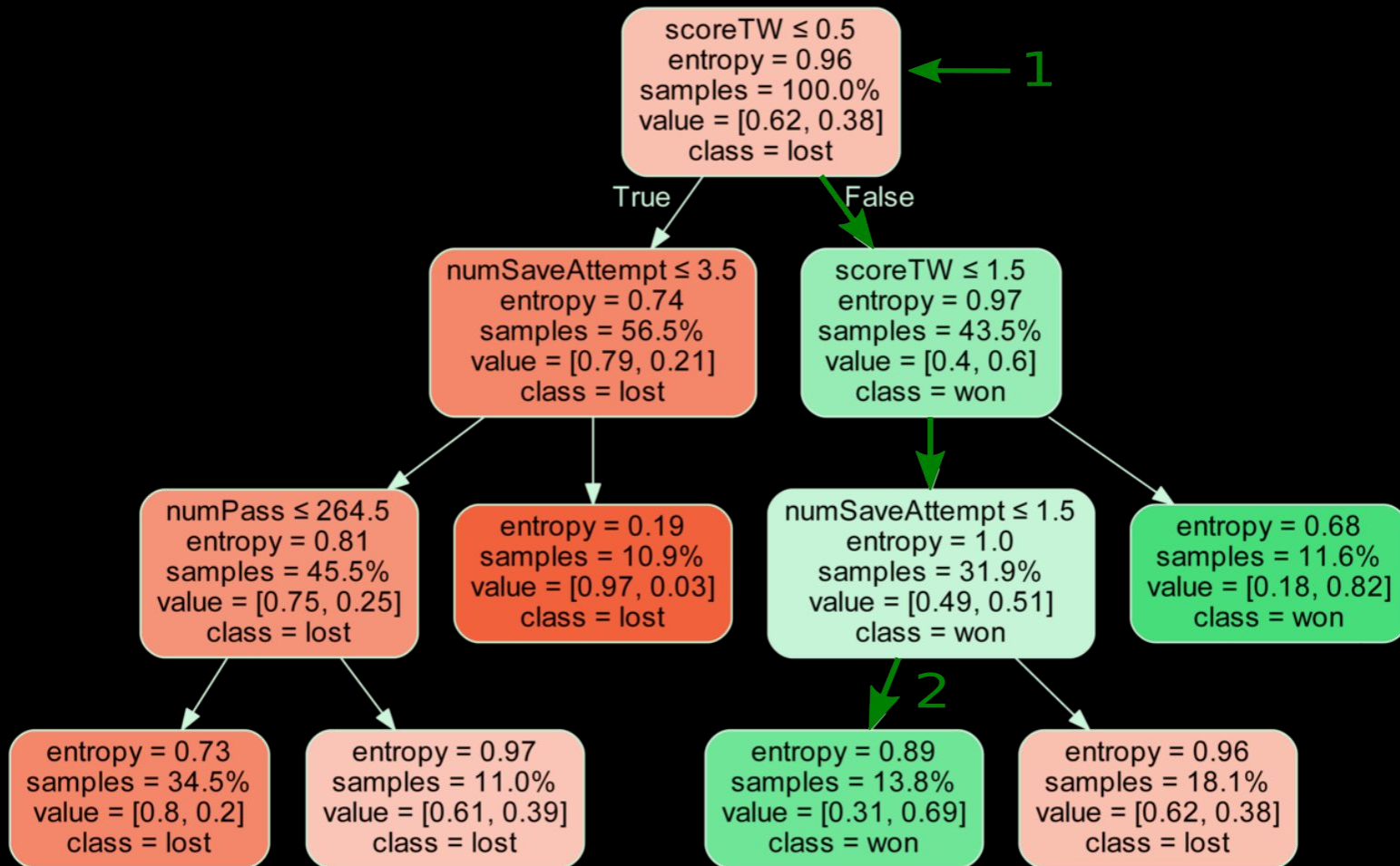
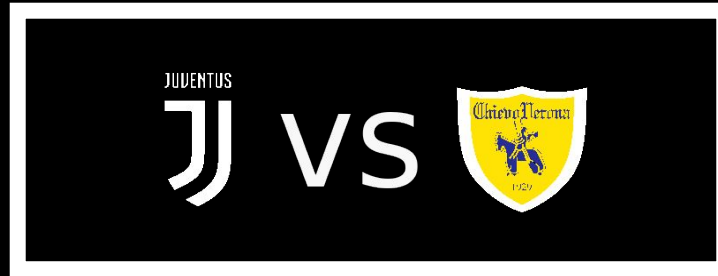


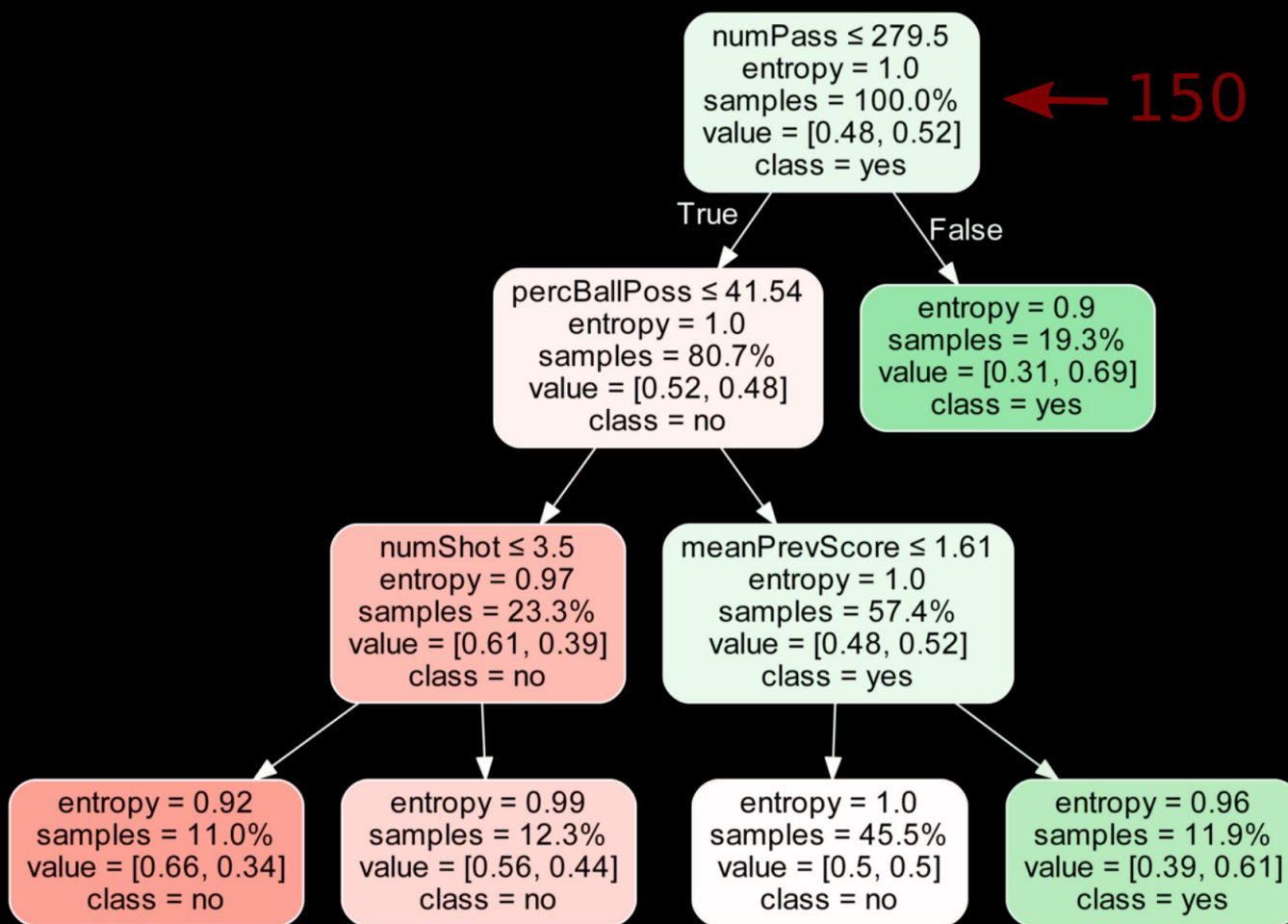


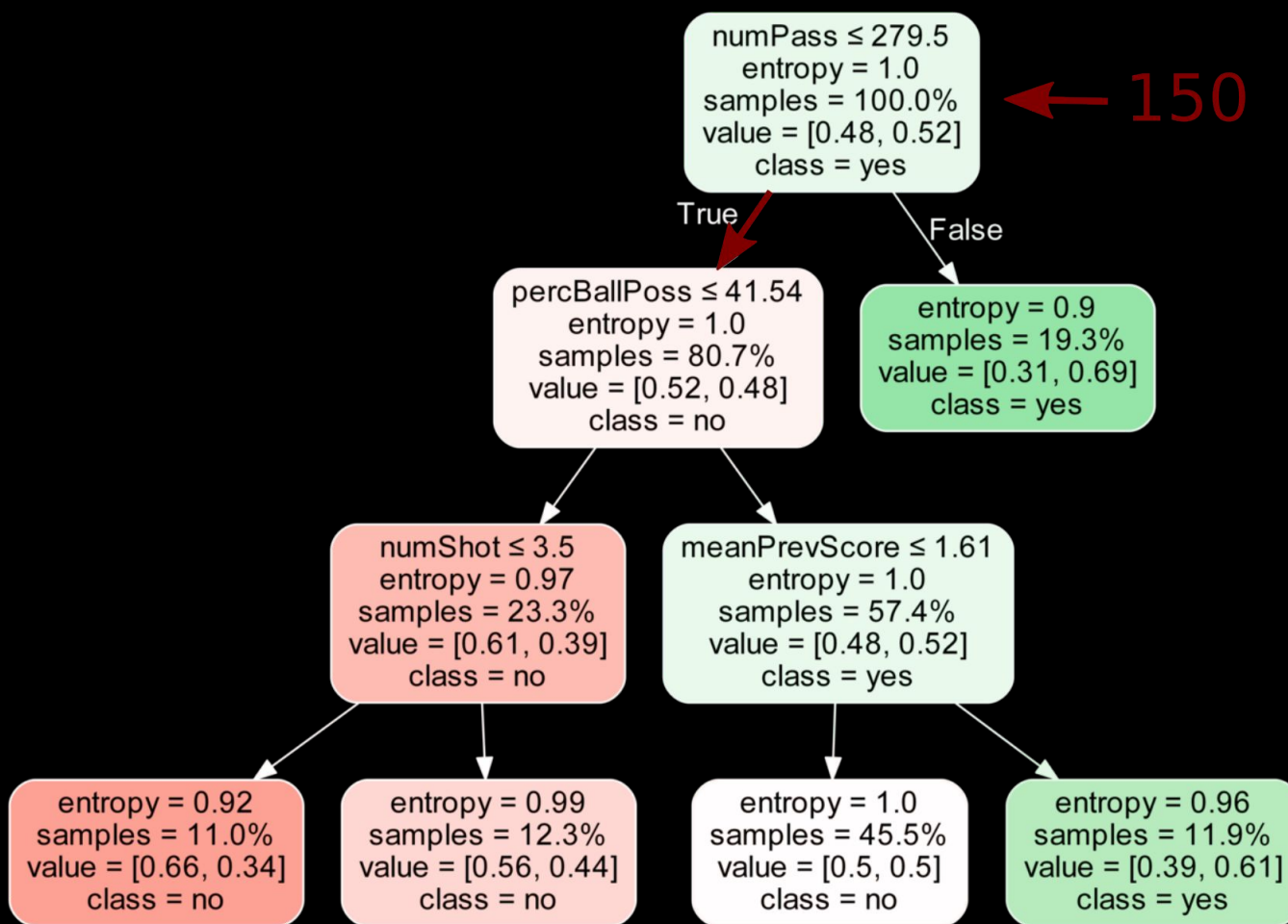














numPass ≤ 279.5
entropy = 1.0
samples = 100.0%
value = [0.48, 0.52]
class = yes

← 150

True

False

percBallPoss ≤ 41.54
entropy = 1.0
samples = 80.7%
value = [0.52, 0.48]
class = no

entropy = 0.9
samples = 19.3%
value = [0.31, 0.69]
class = yes

← 33,8%

numShot ≤ 3.5
entropy = 0.97
samples = 23.3%
value = [0.61, 0.39]
class = no

meanPrevScore ≤ 1.61
entropy = 1.0
samples = 57.4%
value = [0.48, 0.52]
class = yes

entropy = 0.92
samples = 11.0%
value = [0.66, 0.34]
class = no

entropy = 0.99
samples = 12.3%
value = [0.56, 0.44]
class = no

entropy = 1.0
samples = 45.5%
value = [0.5, 0.5]
class = no

entropy = 0.96
samples = 11.9%
value = [0.39, 0.61]
class = yes



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← 150

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↓ 5

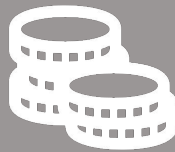
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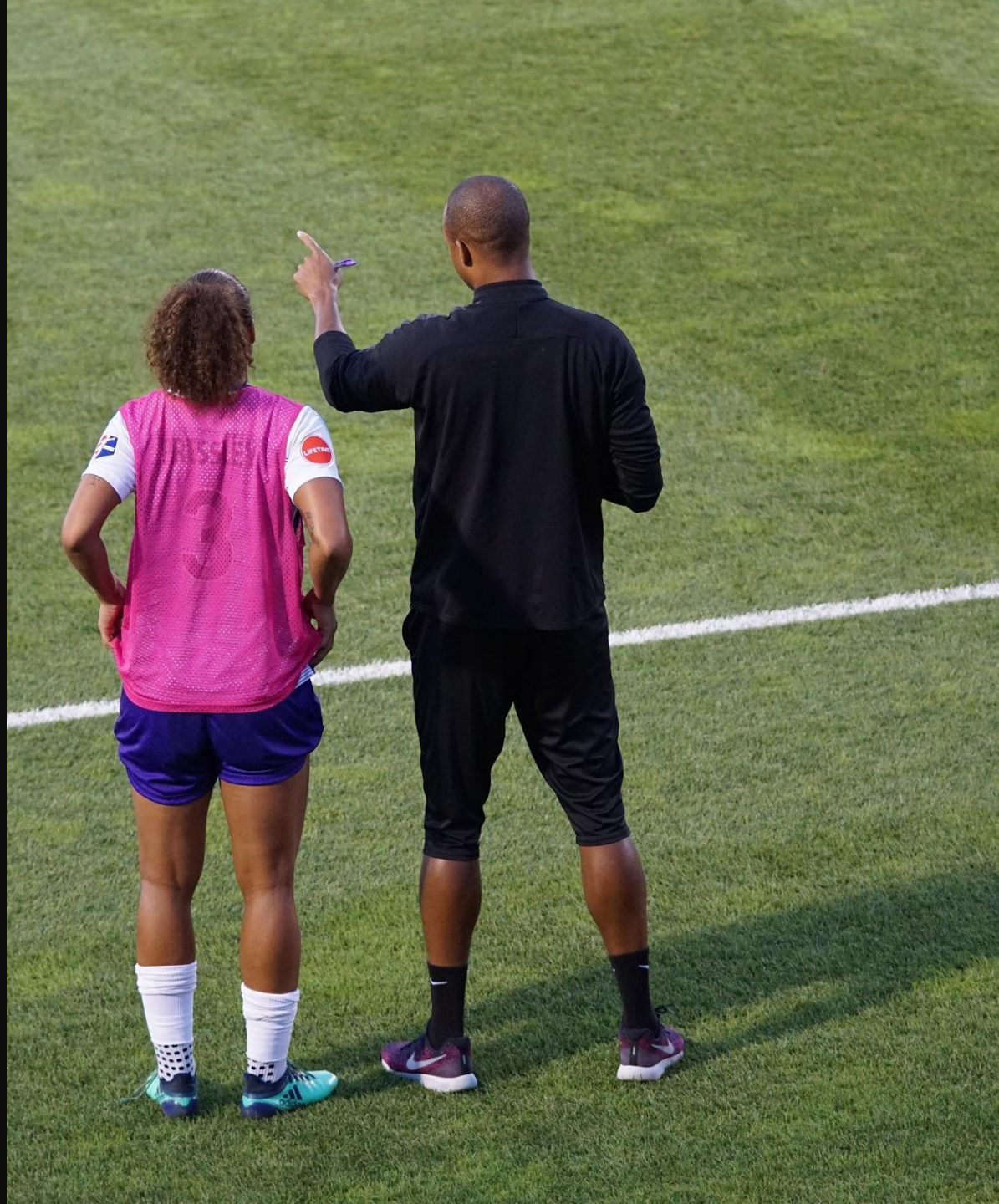
TO WHAT END?



BETTING TIPS



COACH ASSISTANT



FRAUD DETECTION





THANK YOU

“

In football as in watchmaking
(and in data mining, ed.),
talent and **elegance** mean
nothing without **rigour** and
precision.

”

L. Messi

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