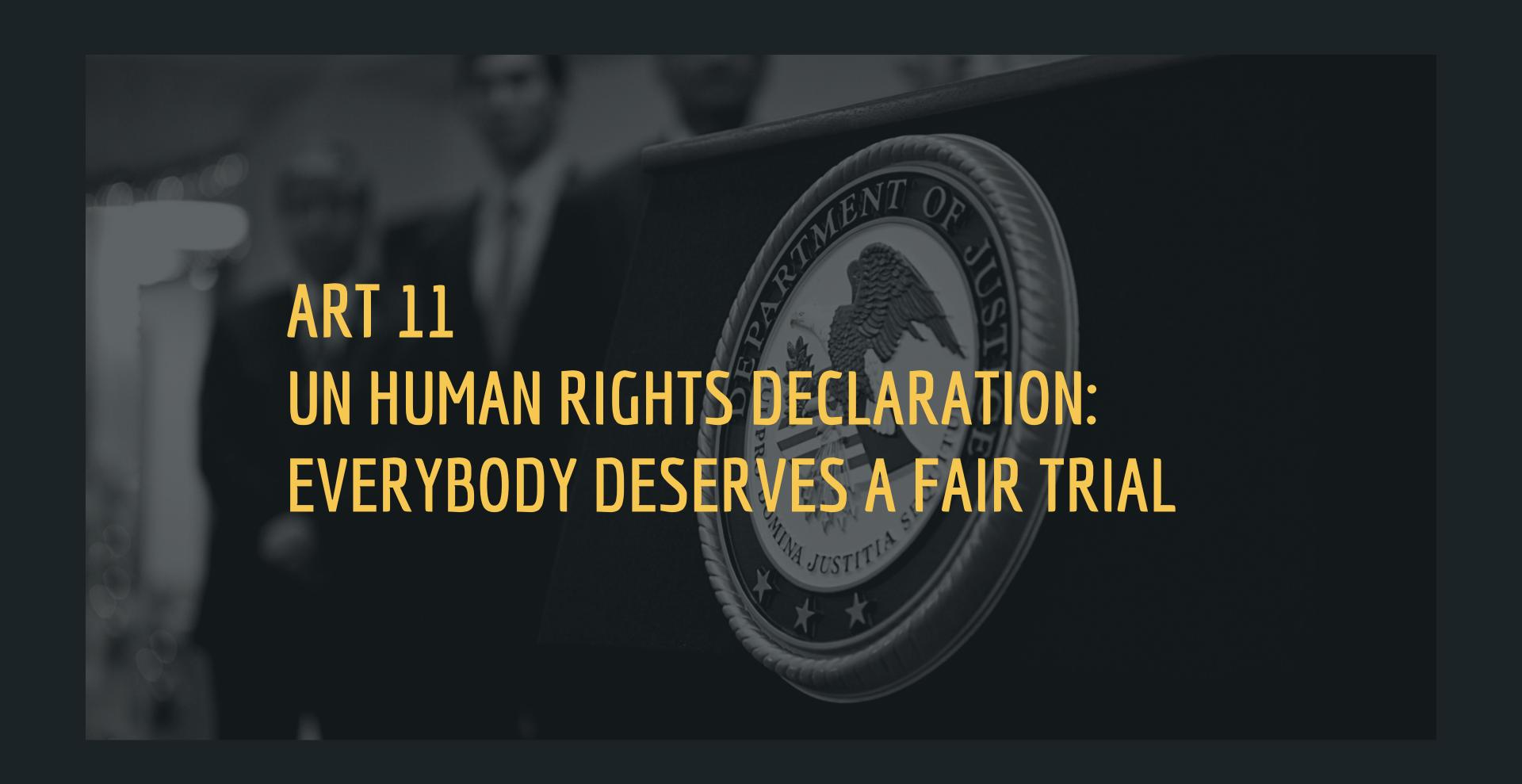


Team 9: Hrvoje Abramovic - Ivan Lovrencic - Laure Berth - Louise van Cleemput

SOMEONE MUST HAVE SLANDERED JOZEF K., FOR ONE MORNING, WITHOUT HAVING DONE ANYTHING TRULY WRONG, HE WAS ARRESTED.

FRANZ KAFKA, THE TRIAL



COMPAS

RECIDIVISM RISK SCORES FOR DEFENDANTS

"Black box" model that helps judges make decisions.

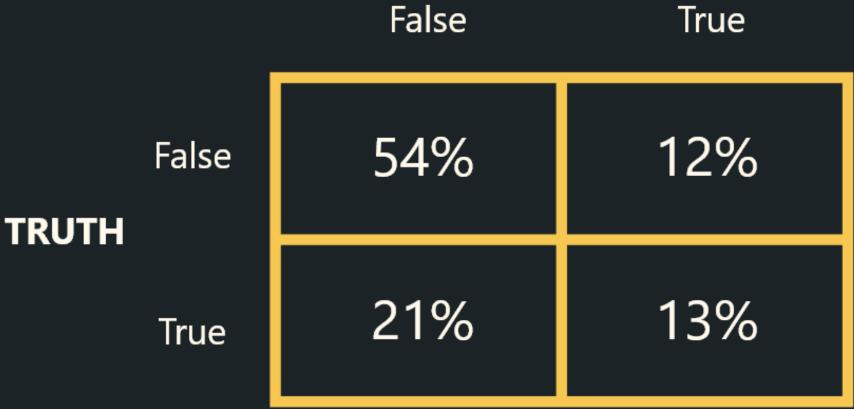
CONFUSION MATRIX

HOW WELL DOES THE MODEL PREDICT?

ACCURACY: 67%

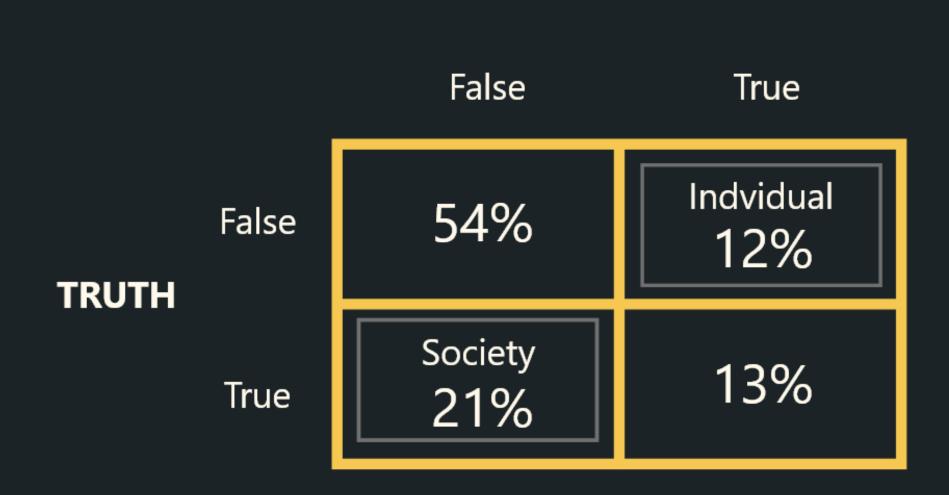
F-SCORE: 45%

PREDICTION



TRADE-OFF

HOW TO BALANCE THE MODEL?



PREDICTION

BLACKSTONE'S RATIO

IT IS BETTER THAT TEN
GUILTY PERSONS ESCAPE
THAN THAT ONE
INNOCENT SUFFER.

BIAS IN MISTAKES

IS THERE A RACIAL BIAS IN MODEL'S MISTAKES?

Entire dataset

POC 0.48
Caucasian 0.36
Hispanic 0.09
Other 0.06

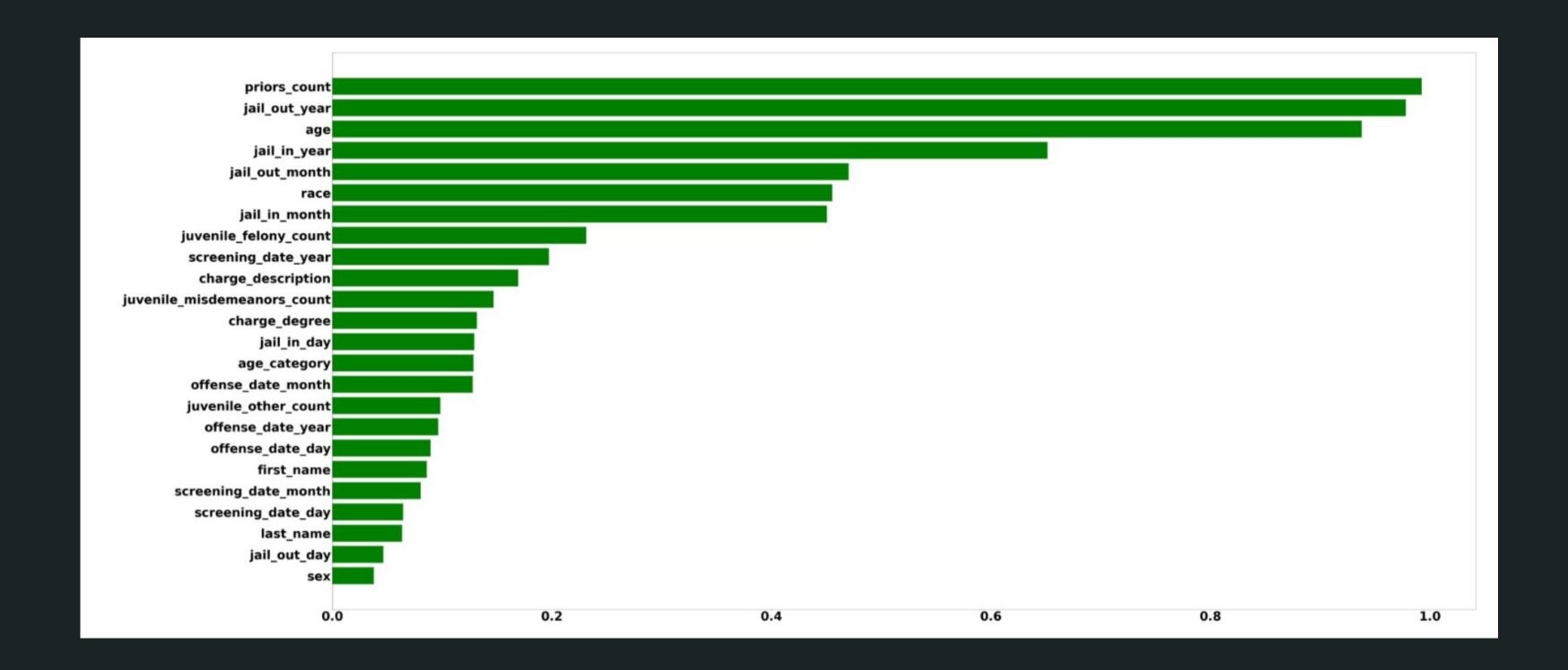
False positives (predicted as recidivists)

POC 0.68

Caucasian 0.24

Hispanic 0.06

Other 0.02

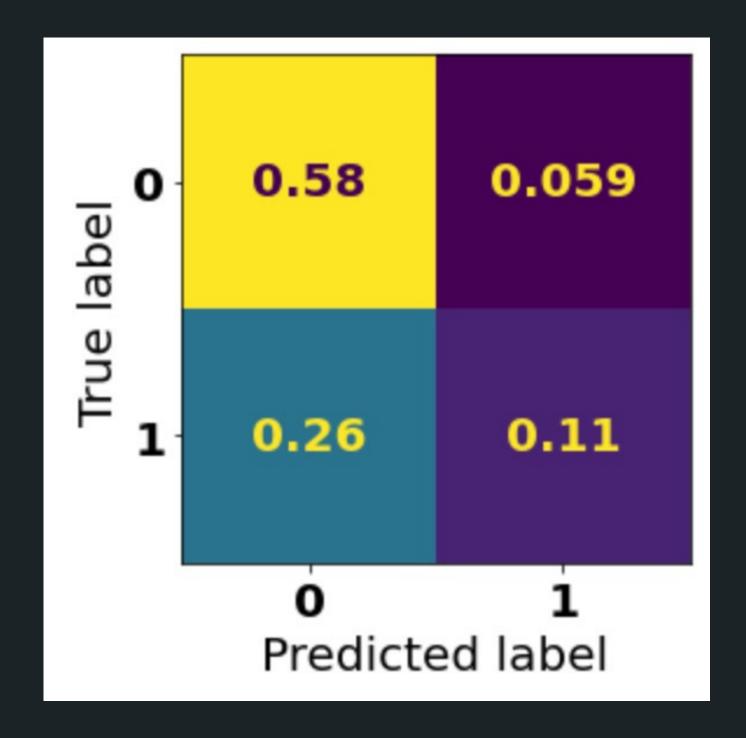


CAN WE DO BETTER?

OUR MODEL

LOGISTIC REGRESSION MODEL RACE WAS NOT EVEN CONSIDERED ACCURACY: 68%

F-SCORE: 41%



CONCLUSION