

LIGHTYEAR INC.



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STAKE HOLDERS



ELON MUSK





BUSINESS PROBLEM

Elon hired us to predict if a star is variable or not so he can do more research on the star and its surrounding.

OVERVIEW



DATA



MODEL



SUMMARY

DATA UNDERSTANDING

WHERE IT CAME FROM

- European space agency's satellite also known as Hipparcos with over 70k entries (post cleaning)

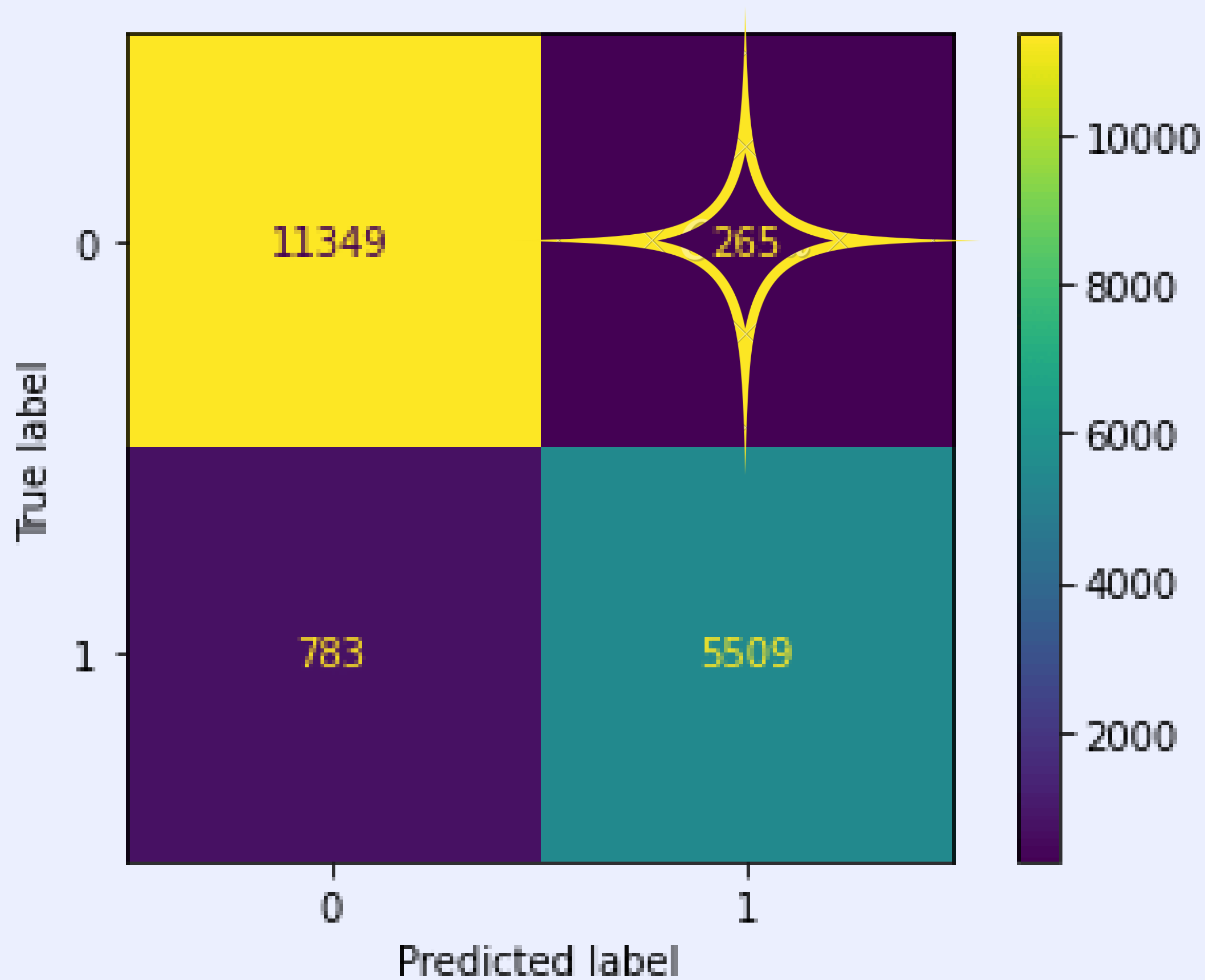
HOW WE USED IT

- Filled the nulls of the numerical columns with the median
- Filled the nulls in the categorical columns with 'none'

FINAL MODEL

- We decided to use a Random Forest model which takes many different simpler models and combines them to get a more accurate prediction.
- Our model can predict accurately up to 94%
- We used 64 features to predict if a start is variable or not

VISUAL



We don't
want to
tell Elon to
use a star
for
research
when he
can't .

CONCLUSION

- ONLY SUGGEST STARS THAT OUR MODEL PREDICTED AS VARIABLE
- OUR MODEL IS NOT PERFECT

NEXT STEPS



More
Models



Explore
Different
Levels of
Variability



Stronger
Domain
Expertise

THANK YOU



QUESTIONS?

