E-Commerce Shipping

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OUTLINE

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- work flow
- Data
- EDA
- Experiments
- Roc Curve
- Conclusion

Introduction

We have an E-commerce website and our products shipping to every where.. we have business problems in shipping that's why we trying to solve it by making a model that predicts the product shipment delivered on time or not,to make our customers more satisfied

Work Flow

- Search for the dataset
- EDA
- classifaction model
- Experiments
- ROC curve

Data :

Sourse

Kaggle .com

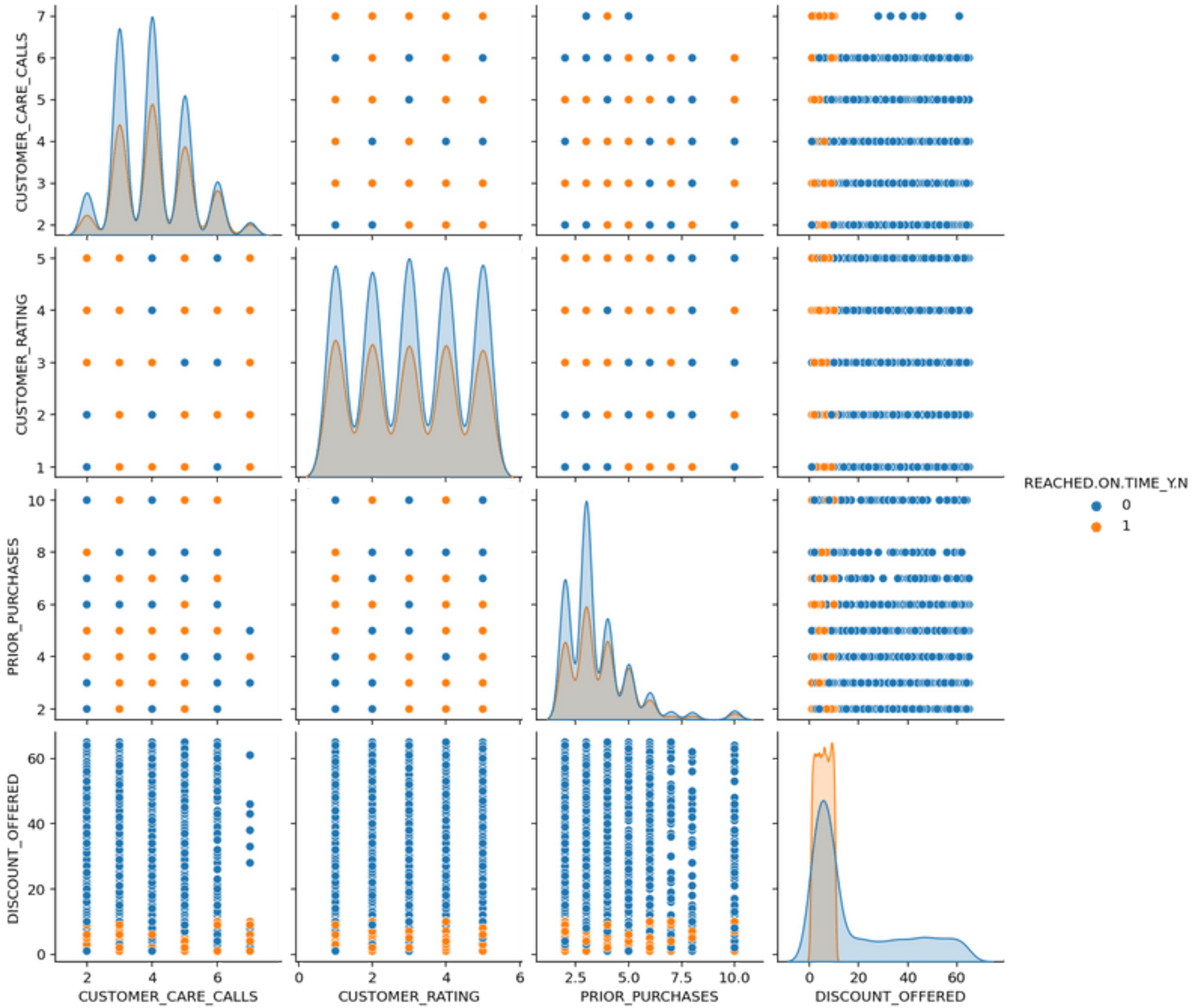
Size

10999
12 Rows

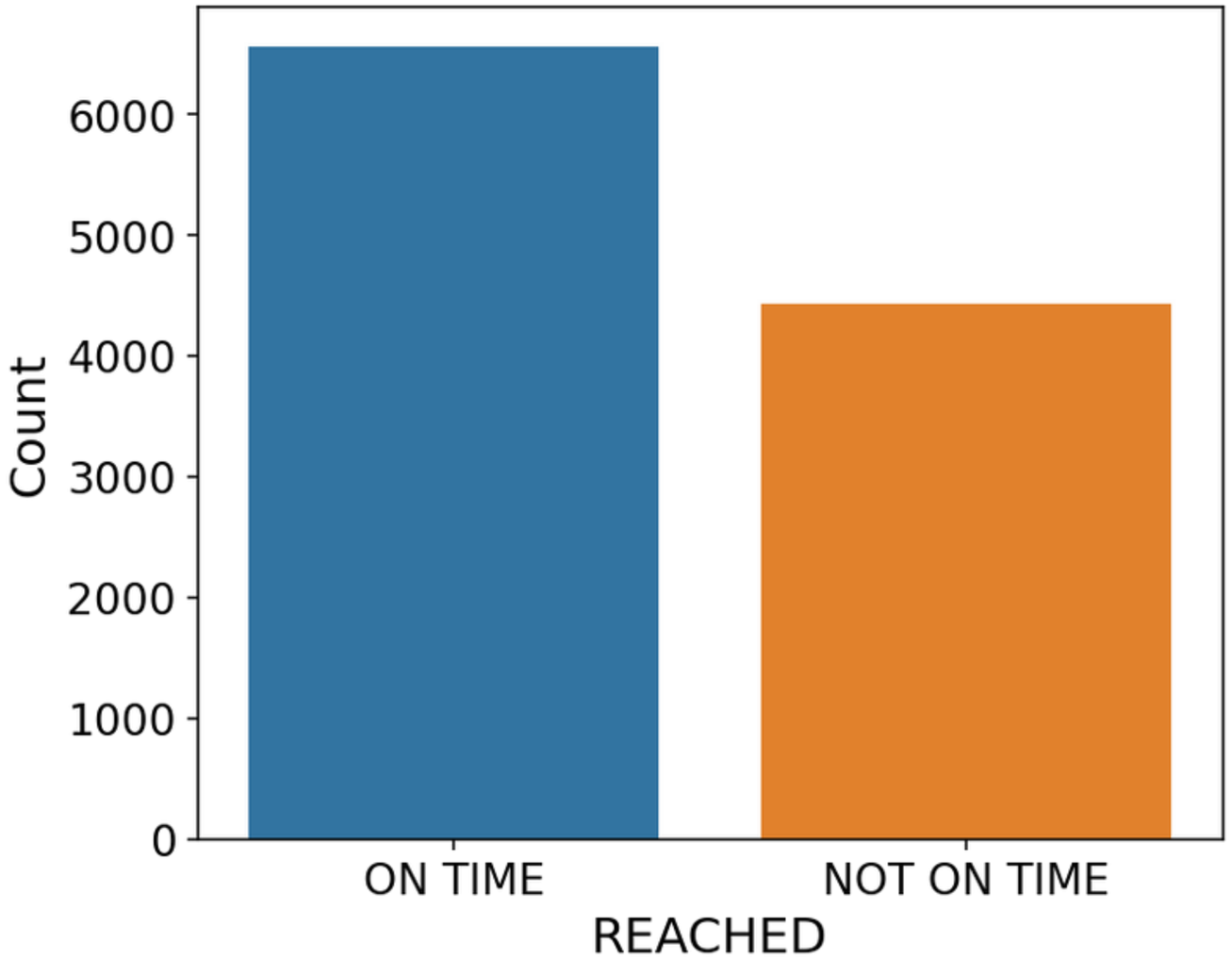
Type

String - Integer

visulaztion the Liner or nonliner



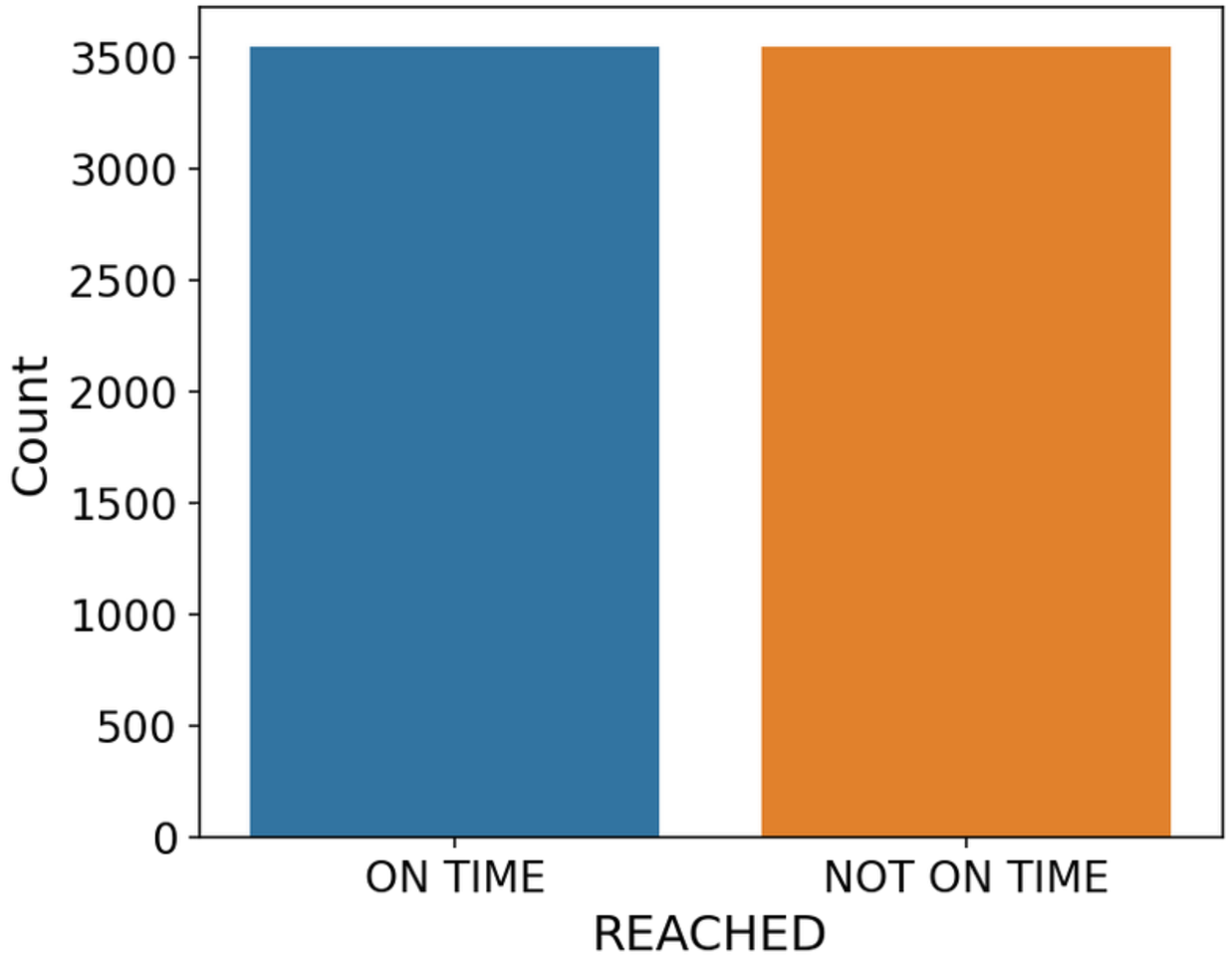
Is the data balanced or imbalanced?



Handling imbalnced

- Random over sampling
- SMOT
- Random Under sampling

After balanced our Data

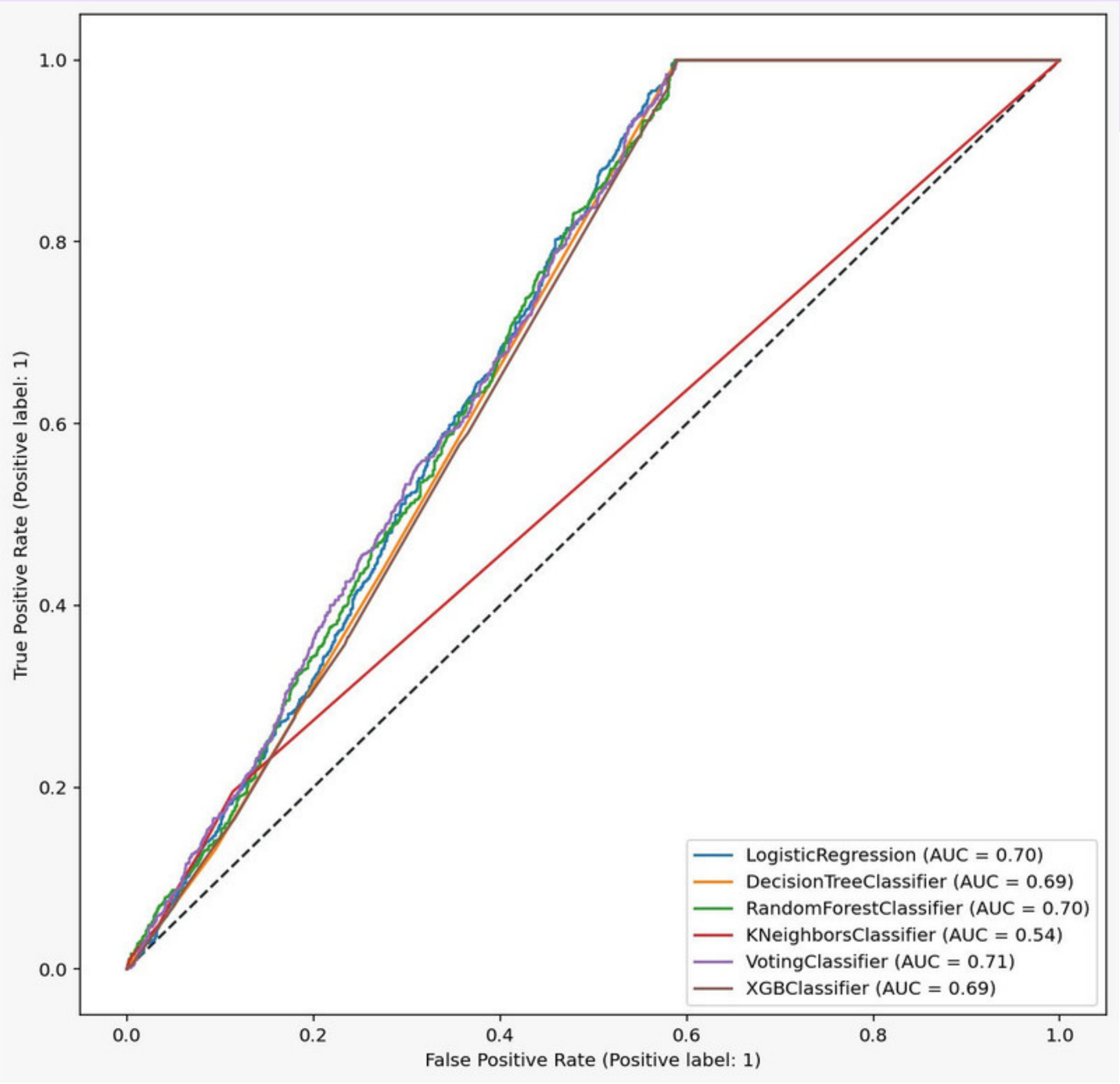


Experiments

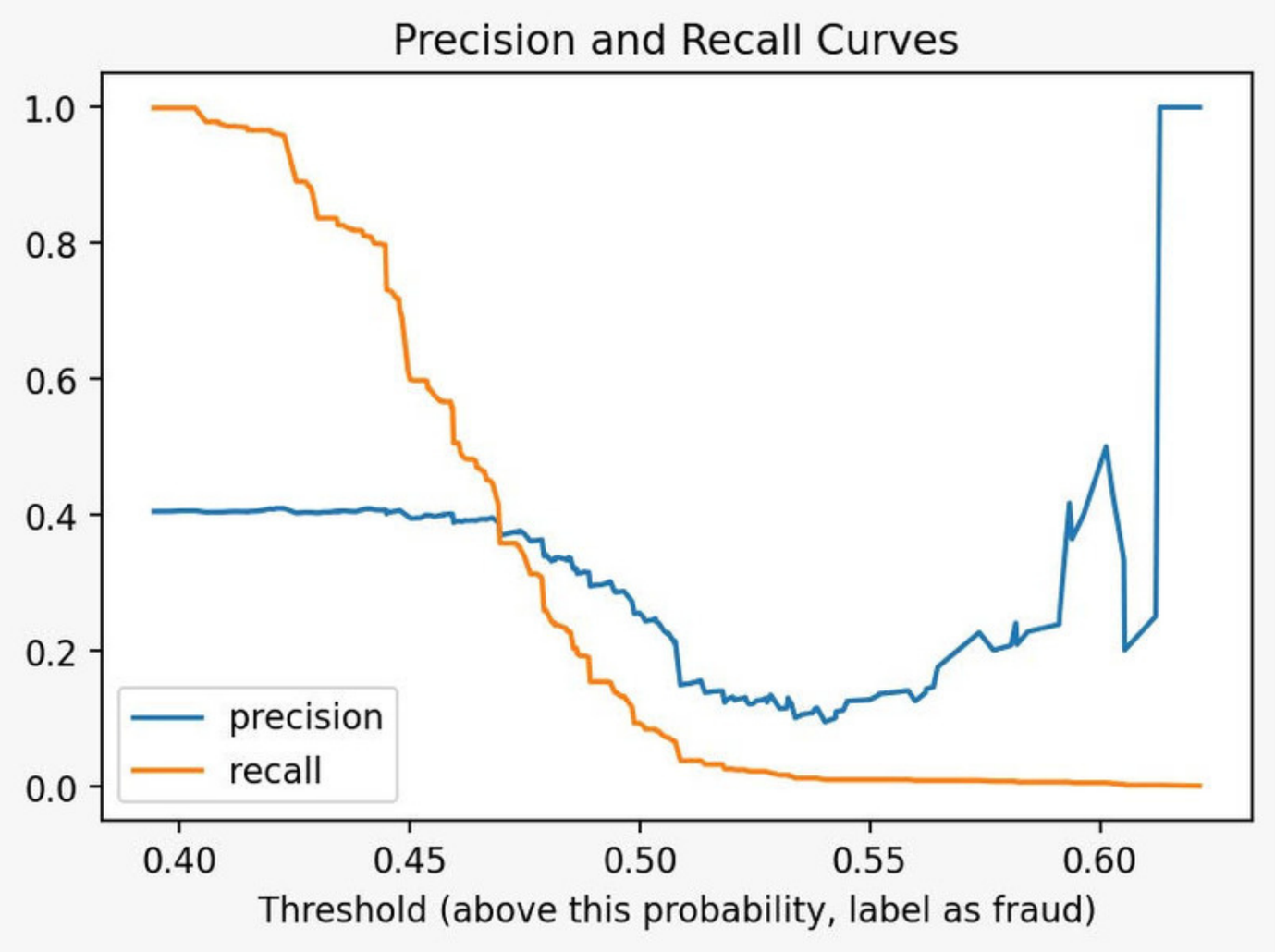
Model	F1	Precision	Recall
Baseline Model	0.53	0.53	0.54
Dummy model	0.53	0.53	0.54
Scaling	0.53	0.53	0.54
Grid search	0.68	0.51	0.99
Decision tree	0.65	0.53	0.87
Random forest	0.63	0.54	0.77
Voting	**0.71**	**0.54**	**0.68**
Stacking classifier	0.42	0.51	0.36
XG-boots	0.67	0.53	0.89

ROC CURVE

this figure show the ROC curve for all models



Precision and recall curve for best model



CONCLUSION

We noticed during the project, that Voting Model gave us the best results among the models, and it can help the compain to predict the products has reached on time or does not reached on time.

Thank you!

Questions?