



Data Glacier

Your Deep Learning Partner

Bank marketing (campaign)

JSSN Group

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Group members names

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Agenda

Business Problem

EDA Recommendations

Model Building

Model Selection

Performance Metrics

Recommendations

Business Problem

- ABC Bank wants to sell its term deposit product to customers. The bank aspires to use an ML Model to focus on shortlisted customers which they are often interested in bank's campaigns. The Bank desires to save time costs for the employees and resources in these campaigns that will achieve only with marvelous ML model.
- Deposit for client funds transferred to a specific creation account. After that, the money will be returned to the depositor with interest usually calculated at the end of the term, with closing. But some banks offer money with interest capitalization - daily and monthly.

EDA Recommendations

Depending on values of y (yes or no) we used as ML models :

Logistic Regression ,Bagging Classifier, XGBOOST and Decision Tree.

Model Building & Selection

We worked on four different models:

- Xgboost
- Bagging Classifier
- Logistic Regression
- Decision Tree Classifier

Model Building & Selection

We tested our model one with duration and one time without duration. Here are the results of the accuracy and F1 score for each model.

With duration:

	acc	f1
xgboost	0.901311	0.599705
bagging	0.882460	0.886001
LogisticRegression	0.864799	0.863804
DecisionTree	0.875761	0.883562

Without duration:

	acc	f1
xgboost	0.891843	0.502513
bagging	0.775274	0.757077
LogisticRegression	0.772229	0.758710
DecisionTree	0.774665	0.736091

Final Recommendations

- As we can see, the models are much better with the duration column. Also, it seems like the undersampling goes better in terms of f1, but slightly worse with accuracy.
- Apart from that, all the models are better than choosing randomly.
- Taking account all this, we will choose the logistic regression as our model, since it is the simplest one without losing significantly in any of the chosen metrics.

Thank You