



Micro-Credit Defaulter Model

ACKNOWLEDGMENT

Many thanks to the following resources that helped me and guided for the project

MachineLearning :

- <https://www.cs.ubc.ca/~nando/540-2007/>
- <https://www.kaggle.com/sivakrishna3311/delinquency-telecom-model>
- <https://medium.com>
- DataTrain
- Asta Mishra at FlipRobo

Problem Statement

A Microfinance Institution (MFI) is an organization that offers financial services to low income populations. Microfinance services (MFS) becomes very useful when targeting especially the unbanked poor families living in remote areas with not much sources of income. The MFS provided by MFI are Group Loans, Agricultural Loans, Individual Business Loans

Data Preprocessing

- Data Imported
- Label (target variable) depends on all the features of 30 or 90 days mobile loan/repay .
- Pccricle and msisdn are not effect the target variable
- negative/null data verification/handling

Models/Development and Evaluation

Classification Model with following algorithms

- KNeighborsClassifier
- LogisticRegression
- DecisionTreeClassifier
- GaussianNB
- SGDClassifier

ensemble methods

- AdaBoostClassifier
- GradientBoostingClassifier
- RandomForestClassifier

Conclusion

model which can be used to predict in terms of a probability for each loan transaction, whether the customer will be paying back the loaned amount within 5 days of issuance of loan

RandomForestClassifier Model with MAX Accuracy score value