A-LAP

Automatic loan approval prediction

ABOUT TEAM

Team Prathyegam has always been about brainstorming every idea and bringing that conceptualization into a working deployable model. We as a team have worked in great synchrony to complete these tasks even though being far away and connecting through online mode. The team works by micro managing the work flow and integrating the output in every sub final meetings making it easy to finish the desired product.

JATAYU SEASON-2

TEAM PRATHYEGAM

TEAM MEMBERS

- Rohit Gangadhar P
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- Roshan M
- Shahul Hameed P T S
- Yogeshkumar R

ABOUT A-LAP

Automating the loan approval procedure is a suitable and necessary response to the market's demand. Our team's goal is to develop an accurate and user-friendly solution rather than merely automate the procedure. We came Up with a solution , A-LAP
(Automatic Loan Approval Prediction) .

A-LAP is very versatile in a way that it can customize itself to every user needs. It is designed to serve a broad range of customers, regardless of the scale of their needs.

KEY FEATURES

- ACCURATE PREDICTION
- DYNAMIC FORM
- VISUALIZATION
- SCALABILITY
- BUILDING YOUR LOAN TYPE

FEATURES

ACCURATE PREDICTION

In order to achieve an average accuracy of 86 percent on datasets of various sizes, our product is built on accuracy. 7 ML models were blended into one. In order to get the accurate response from the combined ML models, we used a voting classifier. In addition, Dual-Cross Validation was employed, which automatically adjusts its Hyperparameters to achieve the desired accuracy.

SCALABILITY

A-LAP is designed to serve a broad range of customers, regardless of the scale of their needs. We evaluated our software with data sets ranging in size from small samples to datasets with two million occurrences. Additionally, we were able to visualize the dataset of any given size we tested.

DYNAMIC FORM

Dynamic form is the revolutionary feature which makes our product to stand out from the rest and the basic idea of this dynamic form is to generate a unique form according to the preprocessing which is done on the dataset by the user .

BUILDING YOUR LOAN TYPE

Our product does not stick only with single loan model for all the use cases but users can create and train their own model using their own dataset. Our product can create any number of loan type according to the user need.

VISUALIZATION

The best way to analyze the dataset is to visualize it and visualizing the dataset also helps the users to interpret the complicated data in order to visualize the dataset instantly we have used JavaScript to project the all possible bar graphs with all the features provided in the dataset .

ALGORITHM

- ADABOOST CLASSIFIER
- LOGISTIC REGRESSION
- GRADIENT BOOST CLASSIFIER
- BAGGING CLASSIFIER
- SVC
- RANDOM FOREST CLASSIFIER
- EXTRA TREE CLASSIFIER

UNIQUE FEATURES

- The algorithm uses dual cross validation by which it can fine tune its hyperparameter to get more accurate solution and also rules out the problem of over fitting.
- User can create their own type of loan .
- User can preprocess ,encode and train their own model.
- Better understanding of the training data using visualization.

FUTURE ROADMAP

- Role Based Access Control.
- User Logging.
- Storing Loan Applicant Data.
- Accepting various input file types.
- Appending Datasets.
- Visualizing a Cluster of loan applicants using unsupervised learning methods.