Smart Lender - Applicant Credibility Prediction For Loan Approval

Literature Survey:

Existing problem:

Amira Kamil Ibrahim Hassan, Ajith Abraham (2008) used a prediction model which was constructed using three different training algorithms to train a supervised two-layer feedforward network. The results showed that the training algorithm improved the design of loan default prediction model. Angelini (2008) used a neural network with standard topology and a feed-forward neural network with ad hoc connections. Neural network can be used for prediction model. This paper shows that the above two models give optimum results with less error.

Ngai (2009) used the classification model for predicting the future behaviour of costumers in CRM. In CRM domain, the mostly used model is neural network. He recognized eighty-seven articles associated to data mining applications and techniques between 2000 and 2006.

Dr. A. Chitra and S. Uma (2010) introduced an ensemble learning method for prediction of time series based on Radial Basis Function networks (RBF), K - Nearest Neighbor (KNN) and Self Organizing Map (SOM). They proposed a model namely PAPEM which perform better than individual model. Akkoç (2012) used a model namely hybrid Adaptive NeuroFuzzy Inference model, grouping of statistics and NeuroFuzzy network. A 10-fold cross validation is used for better results and a comparison with other models. Sarwesh Site, Dr. Sadhna K. Mishra (2013) proposed a method in which two or more classifiers are combined together to produce an ensemble model for the better prediction. They used the bagging and boosting techniques and then used random forest technique.

Proposed Solution:

We would compare machine learning algorithms such as XGBoost algorithm, KNeighbors, and random forest classifier. The model with the highest degree of accuracy will be picked from among them, and it will be exported.