AN ENSEMBLE TECHNIQUE FOR MULTI CLASS IMBALANCED PROBLEM USING PROBABILISTIC NEURAL NETWORKS

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Abstract

The class imbalanced problem is one of the major difficulties encountered by many researchers when using classification tools. Multi class problems are especially severe in this regard. The main objective of this study is to propose a suitable technique to handle multi class imbalanced problem. Probabilistic neural network (PNN) is used as the classification tool and the directional prediction of Australian, United States and Srilankan stock market indices is considered as the application.

We propose an ensemble technique to handle multi class imbalanced problem that is called multi class undersampling based bagging