A Novel Technique on Class Imbalance Big Data using Analogous under Sampling Approach

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Abstract

In this paper, we propose hybrid Random under Sampled Imbalance Big Data (USIBD) framework to extract knowledge from class imbalance big data. A novel under-sampling method for the base learner is also proposed to handle the dynamic class-imbalance problem caused by the gradual evolution of classes in big data. The proposed USIBD knowledge discovery framework is robust and less sensitive to outliers where non-uniform distribution of data is applied. Empirical studies demonstrate the effectiveness of USIBD in various class imbalance big datasets scenarios in comparison to existing methods.

References

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**Index Terms**

Computer Science  
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**Keywords**

Classification, Big data, Imbalanced data, Under Sampling, USIBD