Using Fuzzy Center Mean (in general any) Clustering Methods to Construct Fuzzy Classifier Tuned to do Classification

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Abstract

This paper presents about using FuzzyCentreMean[1][4][5][7][8] (in general any clustering method) to construct fuzzy classifier tuned to do classification. Clustering methods, in general try to form clusters of data in such a way that a huge chunk of data is reduced to its representative elements(sets). The different clustering methods are like different points of view of the same data[1][4][5][7][8]. For Fuzzy classifier decision making/logic is imparted by Rules of inferences framed by expert human pertaining to data considered. This paper provides a way to construct the rules of inference without the need of humanly intervention but by interpreting data centers of the clusters[1][3][6][11]. The above case is mainly important in almost lossless data compression, in reconstruction of an entire image/video from the damaged copy and in areas of classification of data points into appropriate classes(similar to classes designed by humans manually after interpreting the data). The case study here, is on fisher Iris data set[9].

References

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learning[personal interaction]

Index Terms
Computer Science
Fuzzy

Keywords
fuzzy  fuzzy classifier  cluster  rules of inference  data point  data center  membership  mammadini type
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Fuzzy classifier algorithms
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