Comparative Analysis of K-means Algorithm and Fuzzy C-means Algorithm

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Abstract

Data clustering is an important area of data mining. This is an unsupervised study where data of similar types are put into one cluster while data of another types are put into different cluster. In K-means, data is divided into crisp clusters, where each data point belongs to exactly one cluster. In FCM, a point can belong to all groups with different membership grades between 0 and 1. This paper presents the comparison of the performance analysis of K-means algorithm and Fuzzy C-means (FCM) algorithm using two datasets from UCI in terms of entropy and average computational time.