Chapter 9   Classification and Prediction of Indian Food Based on Machine learning

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ABSTRACT

For human life, Food is highly necessary to live the life as well as essential for human experience. The objective of the current study was to characterise and compare the food consumption patterns of many Indian food diets such as non-vegetarian and vegetarian. Given data about different Indian dishes, let's try to predict if a given dish is vegetarian or not. To get the best predictive model, this study was conducted with the comparison of Decision Tree, KNN, SVM, and Random Forest algorithms. In this study, the concept and implementation of all four models be made for prediction of Indian food, such as, KNN, SVM, Decision tree and Random forest algorithm. For training and testing, a total of 255 records are collected to fit with all four models. In short, the classification and prediction of Decision tree and KNN model are worst. The Random Forest model was generally more accurate than SVM, KNN and Decision Tree model.

Keywords: Indian Food, KNN, SVM, Decision tree, Random forest