

ABSTRACT

Customer Segmentation With K-Nearest Neighbor (KNN)

One of the roadmaps for a successful company is a customer centric experience. In building an excellent customer experience it is important to know what every customer needs through the available information, insights as well as feedbacks collated over the years of business. A proper analysis of these outputs will give rise to the Customer segregation which is a vast array of different customers and their varying needs promoting an efficient service delivery instead of an individual approach which would be cumbersome as well as not being cost effective.

In this project, we combine two data sets using the KNN classification algorithm to segment our customers into groups and test our model for accuracy. KNN is a supervised learning approach which uses proximity to make classification or predictions about the grouping of an individual data point. While it is commonly used for classification problems, it can also be used to solve regression problems.

Classification problems are what we intend to solve in this project. How it solves the problem when classifying is just to assign the data point to the group that has the most observed data point out of its neighbors, and this depends on the number of neighbors selected. In our dataset, customers are segmented into 4 categories based on features like gender, marital status, age, work experience, etc. The datasets we will be using were gotten from Kaggle.

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