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Customer Churn Prediction using Machine Learning

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Abstract: *Churn studies have been used for years to achieve probability and to establish a sustainable customer-company relationship. Deep learning is one of the contemporary methods used in churn analysis due to its ability to process huge amounts of customer data.*
In this study, a deep learning model is proposed to predict whether customers in the retail industry will churn in the future. The model developed is artificial neural network model, which are also frequently used in the churn prediction studies. You may be familiar with deep learning, a kind of machine learning that employs a multilayer architecture known as neural networks, from which the phrase neural network derives.
In the form of a computer network, we create a network of artificial neurons that is similar to brain neurons. The artificial neural network is based on the collection nodes we will call the artificial neurons, which further model the neurons in a biological brain.
The results of the models were compared with accuracy classification tools, which are precision, recall etc. The results showed that the deep learning model achieved better classification and prediction success than other compared models.

Keywords: Churn prediction, deep learning, retail industry, artificial neural network, neural networks, customer churn, machine learning, predictive modeling