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# A Performance Study of Prediction Models for Diabetes Prediction Using Machine Learning

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## Abstract

During the past couple of decades, the geriatric community is commonly affected by a well-known disease, namely diabetes. Recently, many researchers are focusing on developing a prediction model which can accurately predict if the patient is affected by diabetes at an early stage so that they can prevent further complications in health. The proposed research work focuses on analyzing the performance of various machine learning algorithms such as logistic regression, support vector machine, KNN, random forest, naïve Bayes, and gradient boosting classifier which could be used as a prediction model for predicting the common disease diabetes. The performance of these machine learning algorithms is compared, evaluated, and validated using the accuracy score. The results show that random forest classifier outperforms all the other classification algorithms considered for the study.

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