

Diabetic Prediction and Analysing Insulin Levels using Machine Learning

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Abstract: *Diabetes is a chronic metabolic disorder that affects millions of people worldwide. The disease is characterized by high blood glucose levels, which can lead to a variety of health complications if left untreated. Early detection and management of diabetes are crucial to prevent complications and improve patient outcomes. In recent years, machine learning algorithms have been increasingly used to predict the risk of diabetes and provide personalized healthcare to patients. This paper aims to provide an overview of diabetic prediction using machine learning algorithms. Diabetes can be classified into two main types: type 1 and type 2 diabetes. Type 1 diabetes is caused by the destruction of insulin-producing cells in the pancreas, whereas type 2 diabetes is characterized by insulin resistance and impaired insulin secretion. Type 2 diabetes accounts for about 90% of all cases of diabetes. Early detection and management of diabetes are crucial to prevent complications and improve patient outcomes. Several risk factors have been associated with diabetes, including family history, age, ethnicity, obesity, sedentary lifestyle, and hypertension. Predicting the risk of diabetes using machine learning algorithms can help identify high-risk individuals and provide personalized healthcare to patients.*

Keywords: SVM (Support Vector Machine), Decision Tree, Naïve Bayes, Linear Regression, accuracy comparison, machine learning techniques, predicting data values, analysis and results

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