

عنوان مقاله:

Diabetes diagnosis using machine learning

محل انتشار:

مجله پیشگامان انفورماتیک سلامت, دوره 10, شماره 1 (سال: 1400)

تعداد صفحات اصل مقاله: 5

نویسندگان:

Boshra Farajollahi - *Department of Health Information Management, School of Health Management and Information Sciences, Iran University of Medical Sciences, Tehran, Iran*

Maysam Mehmannaavaz - *Doornama Company, Data Science lab, Ilam, Iran*

Hafez Mehrjoo - *Doornama Company, Data Science lab, Ilam, Iran*

Fatemeh Moghbeli - *PhD of Medical Informatics, Assistant Professor, Department of HIT, Varastegan Institute for Medical Sciences, Mashhad, Iran*

Mohammad Javad Sayadi Manghalati - *Department of Health Information Management, School of Health Management and Information Sciences, Iran University of Medical Sciences, Tehran, Iran*

خلاصه مقاله:

Introduction: Diabetes is a disease associated with high levels of glucose in the blood. Diabetes make many kinds of complications, which also leads to a high rate of repeated admission of patients with diabetes. The aim of this study is to diagnose Diabetes with machine learning techniques. Material and Methods: The datasets of the article contain several medical predictor variables and one target variable, Outcome. Predictor variables includes the number of pregnancies the patient has had, their BMI, insulin level, age. The main objective of the machine learning models is to classify of the diabetes disease. Results: Six classifiers have been also adapted and compared their performance based on accuracy, F1-score, recall, precision and AUC. And Finally, Adaboost has the most accuracy 83%. Conclusion: In this paper a performance comparison of different classifier models for classifying diagnosis is done. The models considered for comparison are logistic regression, Decision Tree, support vector machine (SVM), xgboost, Random Forest and Adaboost. Finally, in the comparison flow, Adaboost, Logistic Regression, SVM and .Random Forest, usually has had a high amount; and their amounts has little differences normally

کلمات کلیدی:

Diagnosis, Diabetes, Machine Learning

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1500422>



