

Early Prediction Chronic Kidney Disease Using Machin Learning

TEAM LEADER:

SELVARAJ T (950619104060)

TEAM MEMBERS:

1.MATHAN SUNDAR S (950619104040)

2.SRIDHAR J (950619104063)

3.VEL MURUGAN A (950619104070)

PRE REQUISITE:

TO complete the project we must have some knowledge of the following .
The following things are very important for this project.

1.Anaconda navigator (numpy,Pandas,Matplotlib,Flask)

GIT HUB ACCOUNT:

Mail id - selvaraj4029543@gmail.com

The github id is collaborated with the IBM account.

The GitHub account is -[IBM-EPBL/IBM-Project-45765-1660732188](#)

INSTALLATION OF IDE'S:

PYTHON is downloaded from the official the official website python.org

LITERATURE SURVEY:

REVIEW 1:

TITLE OF THE PAPER:

Prediction of Chronic Kidney Disease using AdaptiveHybridized Deep Convolutional neural Network on theInternet of Medical Thing Platform

PROBLEM DESCRIPTION:

Chronic Kidney disease is a severe lifelong condition caused either by renal disease or by impaired functions of the kidneys. In the present area of research, Kidney cancer is one of the deadliest and crucial importance for the

survival of the patients ' diagnosis and classification. Early diagnosis and proper therapy can stop or delay the development of this chronic disease into the final stage where dialysis or retransplantation is the only way of saving the life of the patient. The development of automated tools to accurately identify subtypes of kidney cancer is, therefore, an urgent challenge in the recent past. In this paper, to examine the ability of various deep learning methods an Adaptive hybridized Deep Convolutional Neural Network (AHDCNN) has been proposed for the early detection of Kidney disease efficiently and effectively. Classification technology efficiency depends on the role of the data set. To enhance the accuracy of the classification system by reducing the feature dimension an algorithm model has been developed using CNN. These high-level properties help to build a supervised tissue classifier that discriminates between the two types of tissue. The experimental process on the Internet of medical things platform concludes, with the aid of predictive analytics, that advances in machine learning which provides a promising framework for the recognition of intelligent solutions to prove their predictive capability beyond the field of kidney disease.

REVIEW-2:

TITLE OF THE PAPER:

Clinical Decision Support System for Diagnosis and Management of Chronic Renal Failure.

PROBLEM DESCRIPTION:

Chronic Renal Failure (CRF) is a gradual loss of kidney's function over a period of time, ranging from months to years. Unlike other chronic diseases, CRF is not yet thoroughly explored in literature. In this paper, we propose a new clinical decision support system for diagnosing patients with CRF. Several data classification algorithms including Artificial Neural Networks (ANNs), Naïve Bayes and Decision Tree are developed and implemented to diagnose patients with CRF and determine the progression stage of the disease. A clinical dataset of 102 instances is collected from patients' records and used in this study. Performance of the developed CRF diagnosis system is assessed in terms of diagnosis accuracy, sensitivity, and specificity and is evaluated by specialist physicians. Furthermore, the open source Weka software is also used in this study for performance comparison and evaluation purposes. The obtained results showed that the developed decision tree algorithm is the most accurate CRF classifier

(92.2%) when compared to all other algorithms/implementations involved in this study.

REVIEW -3:

TITLE OF THE PAPER:

Chronic Kidney Disease Analysis Using Data Mining Techniques.

PROBLEM DESCRIPTION:

Data mining has been a current trend for attaining diagnostic results. Huge amount of unmined data is collected by the healthcare industry in order to discover hidden information for effective diagnosis and decision making. Data mining is the process of extracting hidden information from massive dataset, categorizing valid and unique patterns in data . There are many data mining techniques like clustering, classification, association analysis, regression etc. The objective of our paper is to predict Chronic Kidney Disease(CKD) using classification techniques like Naive Bayes and Artificial Neural Network(ANN). The experimental results implemented in Rapidminer tool show that Naive Bayes produce more accurate results than Artificial Neural Network.