Tittle : Detection of Chronic Kidney Disease with Machine Learning

Chronic Kidney Disease(CKD), is also known as the silent killer as it often goes undetected until the condition is irreversible, thus early detection is a critical component in tackling this condition.Chronic kidney disease (CKD) is a dangerous ailment that can last a person's entire life and is caused by either kidney malignancy or decreased kidney functioning. It is feasible to halt or slow the progression of this chronic disease to an end-stage wherein dialysis or surgical intervention is the only method to preserve a patient's life. Earlier detection and appropriate therapy can increase the likelihood of this happening.
With rampant lack of awareness in developing countries, there is underdetected of earlier stages of CKD, leading to lack of preventive measures, which inevitably facilitates progression of mild, potentially treatable CKD to full-blown kidney failure.The overall CKD prevalence among Pakistani adults is 21.2%. According to high quality studies, the highest CKD prevalence in Pakistan was reported as 29.9%.

Why did I choose this topic?

Chronic kidney disease is a major global health issue that affects a large number of individuals. Creating a precise and effective machine learning model to detect and predict CKD early on could greatly improve patient well-being and healthcare practices. It is crucial for healthcare professionals to identify patients at risk of CKD and take action early to slow down the disease's progression. Machine learning models can play a crucial role in identifying factors that increase the risk of CKD and potential complications, which in turn helps in designing personalized treatment plans for each patient.

References :

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