Abstract

Patient readmission is a significant issue in healthcare, as it can lead to increased healthcare costs, longer hospital stays, and lower patient satisfaction. Predicting which patients are at risk of readmission can allow healthcare providers to take proactive measures to prevent it from occurring. The existing model consists of a machine learning algorithm that is trained on a dataset of patient records. But these models aren't perfect as they have restricted accuracy.Thus it can be difficult or impossible for a human to understand how the system arrived at a particular decision or prediction. This lack of transparency can make it hard to trust the system, and can also make it difficult to identify and correct errors or biases in the system. Our goal is to improve the accuracy of these models by understanding them using Explainable AI .Explainable AI techniques that allow for the interpretation and understanding of the decision-making process of the AI model, which is important for healthcare applications where the consequences of incorrect predictions can be severe. We evaluate the performance of our explainable AI model on a real-world dataset and demonstrate its effectiveness in predicting patient readmission. Our results show that the use of explainable AI can improve the prediction of patient readmission, while also providing insights into the underlying factors contributing to the risk of readmission. With the use of Explainable AI we try to improve the accuracy of our model while also improving human understanding of the persisting model, thereby providing an improved model.