(Case Study)

Estimating the Risk of Illness at Personal Health Care

ABSTRACT

Predictive healthcare has been a major life-saving tool in recent years. In the healthcare industry, intelligent systems that can analyse complex data linkages and turn them into useful information for prediction are developing quickly. Because of this, artificial intelligence is quickly changing the healthcare sector. As a result, systems that rely on machine learning and deep learning are being used to develop methods for diagnosing and predicting illnesses, whether from clinical data or images. These systems offer great clinical support by mimicking human perception and can even identify illnesses that are hard for human intelligence to detect. The healthcare business has a crucial need for predictive analytics. Diseases must thus be precisely estimated. As a result, trustworthy and effective techniques for healthcare predictive analysis are crucial.To offer distinct preventive treatment, improve client happiness, and promote clinic expansion through focused interventions, early identification of clients at risk for chronic illnesses is crucial in the setting of a personal healthcare clinic. A prediction model for identifying clients at high risk for diabetes will be developed in this study utilising clinical, lifestyle, and demographic data. The algorithm was able to predict diabetes risk with an accuracy rate of 85% by applying machine learning techniques to customer data. The clinic can now provide more preventative treatments and customised health programs according to the findings, which will increase customer retention and open up new revenue prospects. (Badawy, M., Ramadan, N. & Hefny, H.A., 2023).