PROGNISIS USING ARTIFICIAL INTELLIGENCE (PAI)

In the era of advanced healthcare technologies, the demand for precise, efficient, and timely medical diagnostics has never been more crucial. Traditional methods of medical image analysis often face challenges related to time-consuming manual interpretation and potential human error. With the increasing volume and complexity of medical imaging data, there is an urgent requirement for automated, intelligent solutions. Medical image analysis is another avenue which is made possible through deep learning machines. While computers excel in executing tasks efficiently, modern algorithms have now reached accuracies comparable to human experts in various medical disciplines.

AIM:

The primary goal of this project is to develop a sophisticated AI system capable of analyzing various medical imaging modalities, such as X-rays, MRI scans. Medical images and scan reports may often be difficult to understand for the common populace. This project aims to solve that problem by using a Convolutional Neural Network (CNN) to analyze various X-ray images and MRI scans and extract information. The analysis is then used to provide a meaningful prognosis for the health complication (if it exists) which is inferred from the data. The additional information can be used for further diagnosis and for patients to better understand their own conditions at a first glance.

The project involves the integration of machine learning models, particularly convolutional neural networks (CNNs), trained on diverse and representative datasets. The resulting AI system will be user-friendly, seamlessly integrated into existing medical imaging workflows, and designed with interpretability and transparency in mind.

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