ABSTRACT

Lung cancer remains a significant global health challenge, with early detection playing a pivotal role in improving patient outcomes. This project aims to address this challenge by developing an online platform for the early identification of lung cancer through the interpretation of CT scans. Leveraging deep learning, particularly convolutional neural networks (CNNs), the platform seeks to streamline diagnostic processes for medical professionals while enhancing early intervention and treatment opportunities for patients. The proposed solution integrates advanced technologies into the diagnostic workflow, aiming to overcome existing inefficiencies in lung cancer detection. By reorganizing traditional diagnostic methods and embracing the power of deep learning, the platform offers a user-friendly interface that simplifies the interpretation of CT scans. Key features of the platform include continuous model training and exploration of additional features to improve accuracy and reliability. Collaboration with healthcare institutions ensures validation based on real-time patient data, ensuring that the platform meets the rigorous standards of medical practice. The user-friendly interface of the platform is designed to facilitate seamless integration into the workflow of medical professionals. Its intuitive design and efficient analysis capabilities empower healthcare providers to make informed decisions swiftly. Continuous improvement is integral to the platform's design, with ongoing enhancements guided by real-world feedback from healthcare professionals. This iterative approach ensures adaptability and efficacy in clinical settings, ultimately leading to improved patient outcomes. The development of this online platform represents a significant step forward in the early detection of lung cancer.