ABSTRACT :

In this study, we propose the use of a convolutional neural network (CNN), a type of deep learning architecture, for the detection of common eye diseases such as glaucoma and cataract.

To train the CNN, we collect a large dataset of eye images that are labeled with the disease present (if any) and the corresponding severity. The CNN is then trained using this dataset to learn the patterns and features associated with each disease.

Once the CNN is trained, it can be used to classify new images of eyes as healthy or containing a specific disease. To make the system accessible to a wide range of users, we develop a mobile application that allows users to take a picture of their eye using their smartphone camera. The image is then analyzed by the CNN and the results are presentedto the user within the app.

In by providing the user with the results of the analysis, it can help to ensure that individuals with serious eye diseases are able to receive prompt and appropriate care.

By developing a mobile app and using deep learning, our proposed system has the potential to improve the accessibility and efficiency of eye disease screening, particularly in resource-limited settings where access to specialized medical equipment and trained professionals may be limited.

Tools Used:

Programming Languages: Python, Flask, Kivy for Android App

Deep Learning Framework: Tensorflow