Retinal Disease Classification Using Optical Coherence Tomography Images

Submitted by

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Abstract

Retinal diseases are one of the leading causes of blindness. Early detection and treatment can considerably decrease the risk of vision loss. Optical Coherence Tomography (OCT) images are crucial for the non-invasive diagnosis of various retinal diseases. Ophthalmologists manually interpret OCT images to detect abnormalities in the retinal layers. This process is slow and prone to human error. An automated classifier can aid ophthalmologists for a highly accurate, efficient, and timely diagnosis. Our paper will focus on a Deep learning-based classifier to detect common retinal disorders like Choroidal Neovascularization (CNV), Diabetic Macular Edema (DME), and Drusen. The proposed deep learning model is meant to run in real-time on mobile platforms and will be lightweight.