



NARASARAOPETA ENGINEERING COLLEGE (AUTONOMOUS)
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

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Batch Number	CB3
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Guide	Dr.K.Suresh Babu M.Tech,Ph.D
Title	Optimized Deep Learning for Multi-Class Retinal Disease Classification Using ResNet-101
Domain/Technology	DEEP LEARNING
Base Paper Link	https://ieeexplore.ieee.org/document/10141609
Dataset Link	https://github.com/huckiyang/EyeNet
Software Requirements	Browser: Any latest browser like Chrome Operating System: Windows 7 Server or later Python (COLAB)
Hardware Requirements	SystemType: Intel Core i5 or above RAM: 8 GB Number of cores:5 Number of Threads: 4
Abstract	Machine Learning (ML) approaches, such as Artificial Neural Networks (ANN), Recurrent Neural Networks (RNN), Deep Learning and advanced architectures like AlexNet and ResNet, are at the leading edge of studies in the identification and type of crucial sicknesses. These techniques leverage the strength of records-driven models to research complex scientific data, main to more correct and efficient diagnostic processes. This work suggests a ResNet-101 model that is meant to handle multiclass classification problems , offering potentially higher accuracy and deeper feature extraction at the cost of increased memory consumption and computational requirements. The ResNet-101 model was tested using the EyeNet dataset, which included 32 distinct types of diseases of the retina. The method achieved accuracy of 98.75% when evaluated on the EyeNet dataset.

Signature of the student(s)

Signature of the Guide

Signature of the project coordinator