**IDEATION**

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| Project Title : Deep Learning Fundus Image Analysis for Early Detection of Diabetic Retinopathy |

Diabetic retinopathy is a state which is due to the damage of blood vessels of the retina. Considering the fact that Retina is the sensitive part it can result in blurry, less intense eye sight and it can also result in disappearing of eye sight. The diabetic retinopathy may cause no symptoms at In its earliest stages, They initial symptoms may be barely noticeable or mild. As time goes on, the state of this issue can worsen and lead to partial and then complete blindness. Thus early detection of this issue is highly recommendable. The diabetic Retinopathy can be detected by undergoing the **dilated eye exam** given by an ophthalmologist or optometrist.

To avoid complication due to late identification of the disease, we develop a deep learning system that can detect early-to-late stages of diabetic retinopathy by using Fundus images as dataset for training and testing the model. The deep learning models like Resnet-50, Alexnet , VGG16, Google-Net, U-Net are under study as of now. After completion of data pre-processing, the model will be trained and tested using the Fundus Images

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