

Date	26 October 2022
Team ID	PNT2022TMID42855
Project Name	Project - Deep Learning Fundus Image Analysis for Analysis for Early Detection of Diabetic Retinopathy

Define your problem statement

 5 minutes

PROBLEM

Diabetic retinopathy is the most common microvascular complication in diabetes. The evaluation is currently performed by medical experts based on the fundus or retinal images of the patient's eyes. As the number of patients with diabetes is rapidly increasing, the number of retinal images produced by the screening programmes will also increase, which in turn introduces a large labor-intensive burden on the medical experts as well as cost to the healthcare services.

Brainstorm

 10 minutes

Team Lead Godson

Close examination of diabetic patients

Analyzing pattern of symptoms among the patients

Create a detailed report for the patient

Getting the medical detail of the patient

Team member Dilshad Nirmal

Examine the images for linearity

working with images from any format

Recommending for regular health checkup

Suggest the optimal blood sugar level

Team member Kannan

Analysis of the fundus images

Eye checkups at regular intervals

Use Machine learning algorithms for detection

Showing the results at the time of prediction

Team member Riyaz Khan

Conscious about food habits

Keep diabetics and BP under control

Avoid high carbs food

Python model to train the datasets

Group ideas

 20 minutes

Need to be done by the patient

conscious about the food habits

close examination of diabetic patients

Keep diabetics and BP control.

Recommending for regular doctor checkup.

Doing eye exercise.

Technical development

Create the login page with Bio metric foruser ..

Showing the various Retinaimages for user reference.

Asking their Medical Details to examine

Use machine learning algorithms for detection.


Final product and language


python language to train the datasets.

Analysis the fundus image for Conclusion.

Showing result at the time of prediction.


Prioritize

 20 minutes




Importance

If each of these tasks could get done without any difficulty or cost, which would have the most positive impact?



Feasibility

Regardless of their importance, which tasks are more feasible than others? (Cost, time, effort, complexity, etc.)



Tasks plotted on the matrix:

- Asking their Medical Details to examine the patient. (High Importance, Low Feasibility)
- Use machine learning algorithms for detection. (High Importance, Medium Feasibility)
- Analysis the fundus image for Conclusion. (High Importance, High Feasibility)
- Create a detaeled report for the patient (Medium Importance, Medium Feasibility)
- Showing result at the time of prediction. (Low Importance, High Feasibility)
- Train the CNN model (Medium Importance, Low Feasibility)
- Showing the various Retina images for user reference. (Low Importance, Low Feasibility)

