Project: **EYE DISEASE DETECTION**

Using machine learning and deep learning,built a project to help identify potential vision problems in individuals:

1. Data Collection:

-Here we collected a dataset targeting eye diseases such as cataract,glaucoma,diabetic retinopathy and the last will be normal.

- Dataset contained retinal images.

2. Data Preprocessing:

- Using OpenCV and image processing techniques, loaded and preprocessed the eye images. Preprocessing included resizing and normalization.

- We also plot some graphs among patients,eye conditions, and other relevant factors,totally depending upon the dataset.

3. Data Splitting:

- Splitting the dataset into training, validation, and test sets.

4. Model Selection:

- Here we took help of deep learning techniques for vision problem detection,Convolutional Neural Networks (CNNs) as they are commonly used for image-based classification tasks.

6. Model Training:

- Trained the model on the basis of the training dataset.

- Then we used some random notations to shuffle the dataset inorder to increase the robustness of the model.

7. Model Evaluation:

- Evaluated the model's performance on the validation dataset using appropriate metrics.

8. Model Testing:

- Tested the final model on the test dataset to assess its performance.

9. Deployment:

- made a GUI to make it accessible .