Project Design Phase-I
Solution Architecture

Date 22 October 2023
Team ID EXT2023TMID592871
Deep Learning Model For Eye Disease Prediction
Maximum Marks 4 Marks

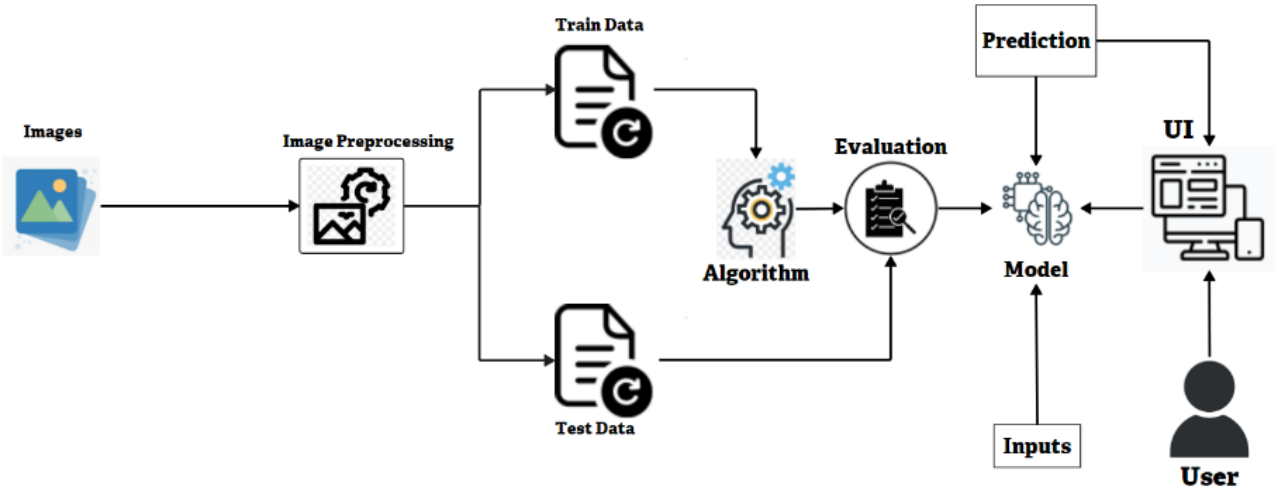
Solution Architecture:

The solution architecture employs deep learning methods for classifying eye diseases, focusing on Normal, Cataract, Diabetic Retinopathy, and Glaucoma, attributed to factors like age and diabetes. Leveraging Transfer Learning, specifically utilizing Inception V3, VGG19, and Xception V3, enhances the model's performance in image analysis. The architecture includes data preprocessing, model training, and an interpretability module. A scalable cloud infrastructure hosts the application, ensuring accessibility and efficient integration into healthcare systems. The solution, driven by artificial intelligence, aims to provide accurate and early detection of eye diseases, contributing to improved patient outcomes through advanced image classification techniques.

Our solution leverages Convolutional Neural Networks (CNNs) to address the eye disease prediction problem effectively.

- Data Preprocessing
- Data Gathering
- Image Preprocessing
- Deep Learning Model
- Eye Disease Prediction
- Continuous Monitoring and Updates

Solution Architecture Diagram


Images
Image Preprocessing
Train Data
Test Data
Algorithm
Evaluation
Model
Prediction
UI
Inputs
User