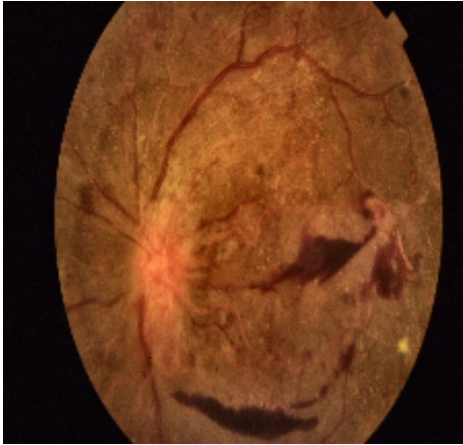
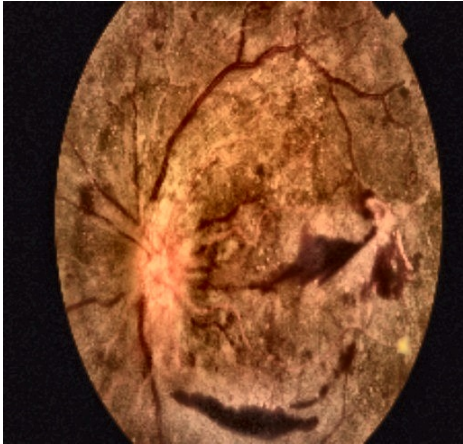


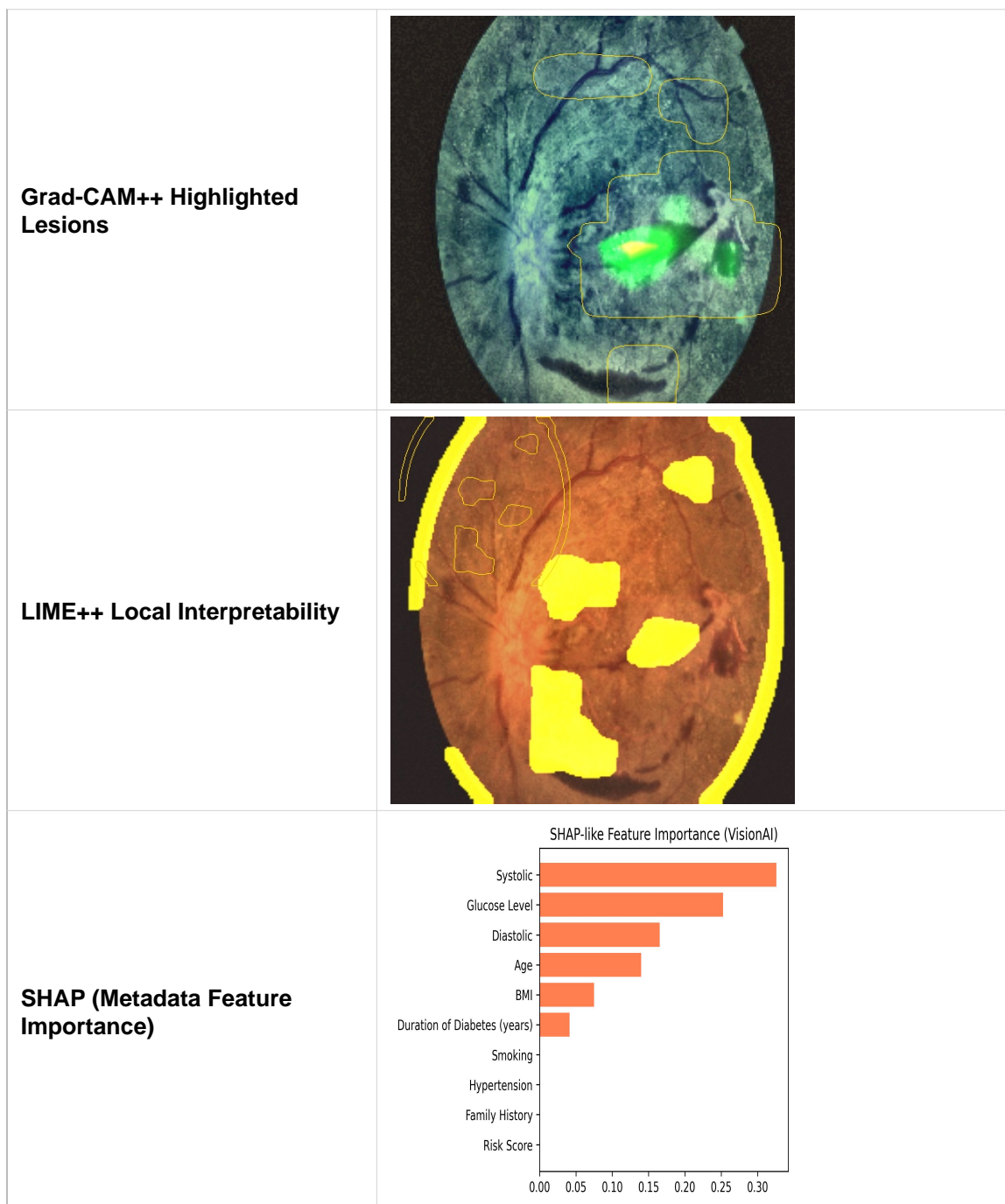
VisionAI — AI-Powered Retinal Screening

Doctor Clinical Report

Patient ID	Patient_328
Age	61 years
Gender	Male
Blood Pressure	142/72 mmHg
Glucose Level	110 mg/dL

Visual Comparison

Original Fundus Image	
Preprocessed Image (CLAHE)	



Diagnosis Summary

AI Inference: Severe Diabetic Retinopathy Detected.

Model Confidence: 94.2%

Lesion Analysis: Lesion coverage = 26.51% (Exudates: 0.42%, Hemorrhages: 1.44%, Cotton Wool: 5.37%)

Interpretability Summary:

- Grad-CAM++ indicates lesion activity concentrated around the macular region.
- LIME++ explains local decision zones that triggered severity prediction.
- SHAP confirms metadata factors (high glucose, high BP, age > 60) contributed most.

Clinical Recommendations:

- Immediate referral to ophthalmologist for fundus fluorescein angiography.
- Maintain strict glycemic and blood pressure control.
- Schedule monthly retinal screening until stabilization.