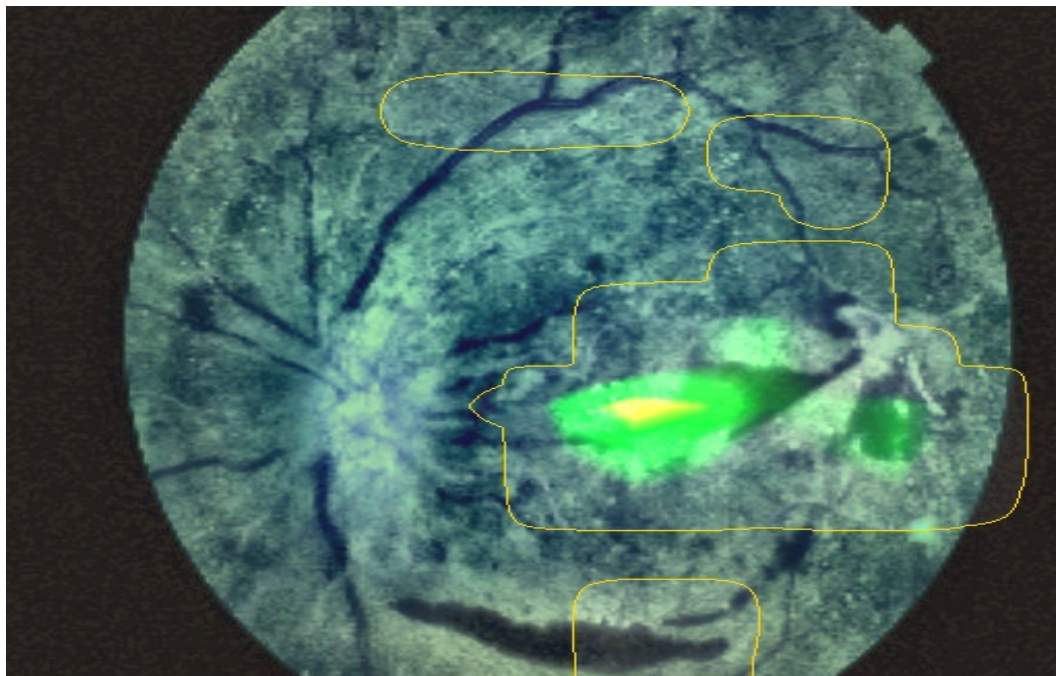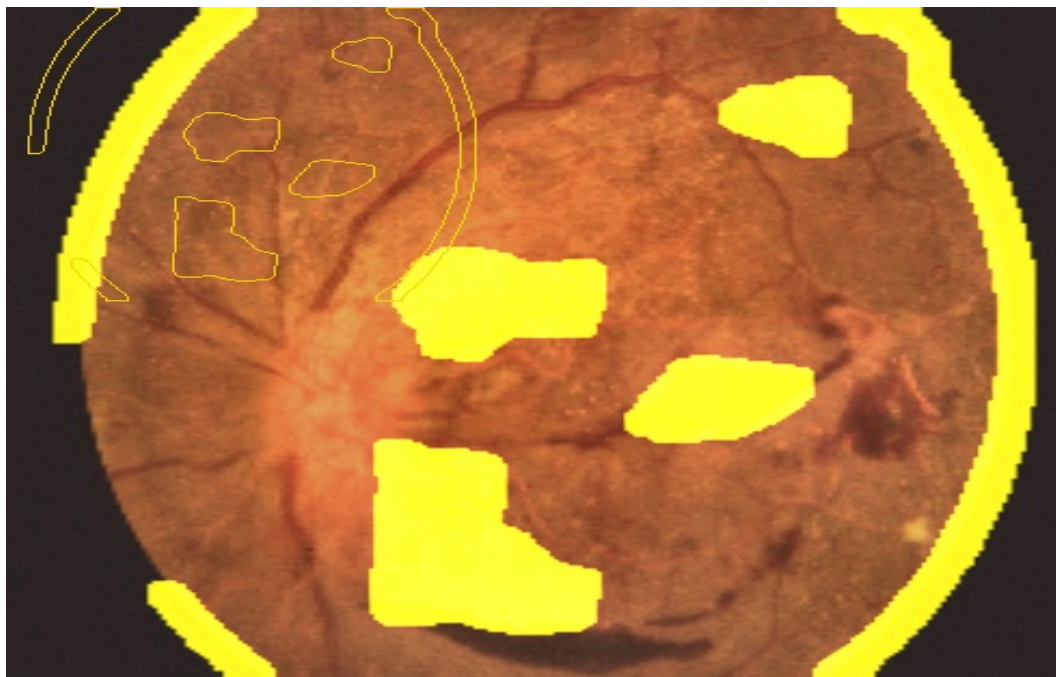# VisionAI - Diabetic Retinopathy Detection Report

Doctor Report
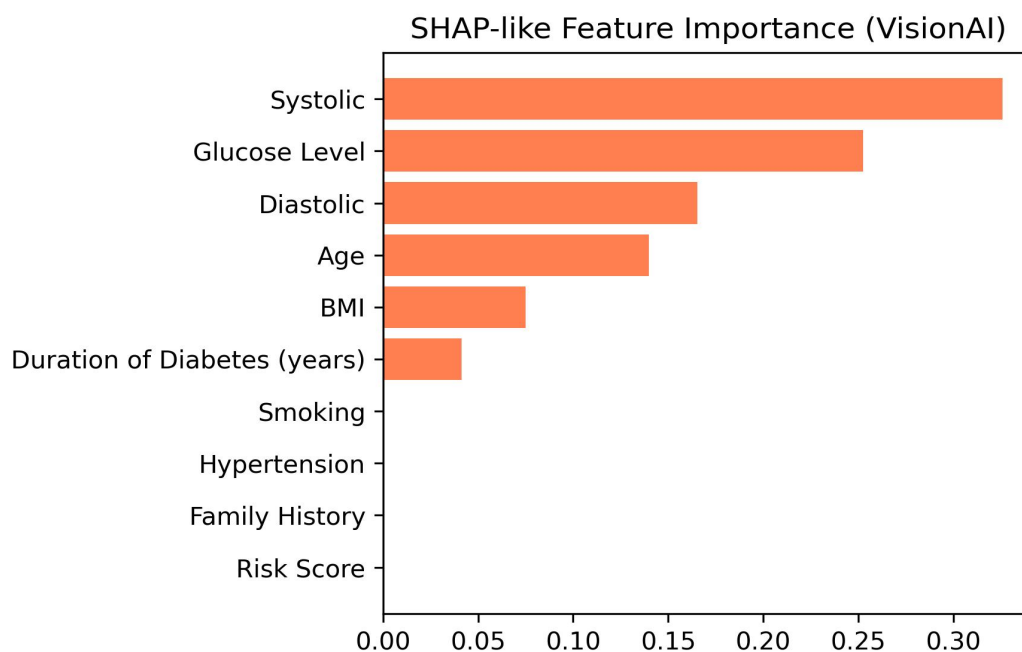
Grad-CAM++ (ClinicalGlow)

LIME++ (Adaptive Retina)

SHAP (Metadata Feature Importance)

SHAP-like Feature Importance (VisionAI)

VisionAI Report - aug_3223686

VisionAI — XAI Report

Case:

aug_3223686.jpg

Generated:

2025-11-06T08:38:34.444779

Doctor Report — Detailed

Original

Grad-CAM++ (ClinicalGlow)

Lesion summary

Lesion coverage (%)

26.51

Exudates (%)

0.42

Hemorrhages (%)

1.44

Cotton Wool (%)

5.37

Notes (auto)

Model focused regions highlighted (Grad-CAM & LIME). Use these to cross-check clinical lesions.

If lesion coverage > 20% — suggest urgent specialist review.

Lesion types are heuristic estimates from activation strengths; confirm clinically.

Patient Report — Friendly

Summary:

Signs of Diabetic Retinopathy detected — please consult an ophthalmologist soon.

Recommended Actions:

Control blood glucose and blood pressure.

Specialist referral recommended if lesions appear extensive.

Maintain routine retinal checkups (6–12 months) or sooner if symptoms worsen.

LIME overlay

Research Summary

Models used: EfficientNet-B0, ResNet50, ViT (ensemble). Explainability: Grad-CAM++, LIME, SHAP-like.

Include ROC/AUC, F1 and confusion matrix from validation if available (run with --compute_metrics).

SHAP (metadata)