Stage: PDR

Metadata Snapshot

Name: solomon

Age: 67

Gender: Male

Systolic (mmHg): 189

Diastolic (mmHg): 110

BMI: 30.8

Glucose: 398

HbA1c: 8.9

Cholesterol: 276

Smoking: Yes

Hypertension: Yes

Diabetes Duration: 17

Feature Importance (Fallback)
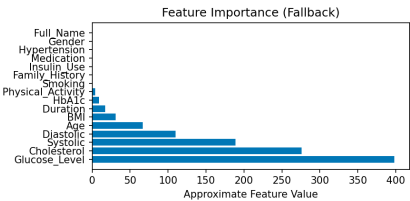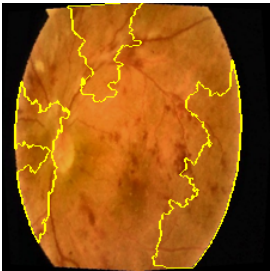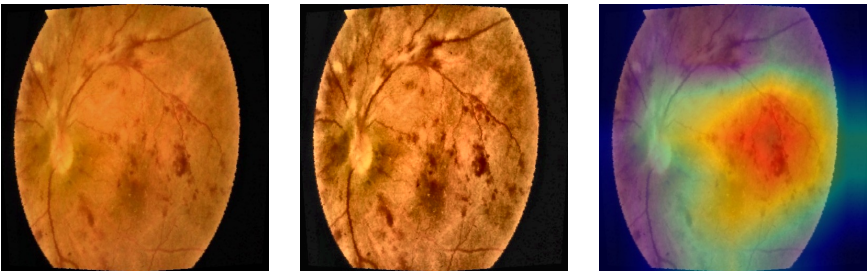
Summary

- Clinical Report — Ophthalmologist
- Patient: Name: solomon, Age: 67, BMI: 30.8
- Predicted stage: PDR
- Model confidence: 83.96%

- Risk score: 96.04%

- Findings (automated lesion quantification):

- - Microaneurysms: 26.90%

- - Exudates: 15.32%

- - Hemorrhages: 3.65%

- - Cotton Wool: 0.00%

- - Neovascularization: 30.00%

- - Total Lesion Load: 45.88%

- Clinical interpretation:

- Features consistent with proliferative DR (neovascularization). Immediate retina specialist referral recommended (consider anti-VEGF / PRP).

- Model & Explainability:

- - Multi-model fusion: CNN ensemble (EfficientNet, ResNet50, ViT) + metadata models (RF, XGBoost, stacked ensemble).

- - Explainability outputs available: GradCAM++, LIME, SHAP — review heatmaps and overlay masks.

- Performance metrics:

- - Accuracy: 0.947

- - F1-score: 0.938

- - AUC/ROC: 0.971

- Suggested clinical action items:

- 1. Correlate with slit-lamp exam and fundus exam.

- 2. If macular edema suspected, obtain OCT imaging.

- 3. For suspected PDR, arrange urgent retina referral for potential PRP/anti-VEGF.

- 4. Document lesion masks if available for audit.

Lesion Distribution (%)