

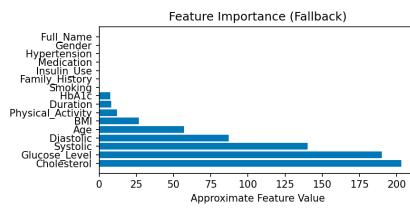
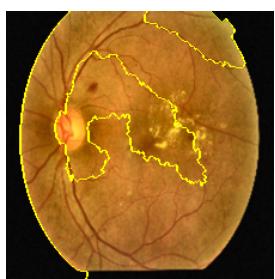
Clinical Report

Generated: 2025-12-04 12:14:20

Stage: MODERATE

Metadata Snapshot

Name: zeba
Age: 57
Gender: Female
Systolic (mmHg): 140
Diastolic (mmHg): 87
BMI: 26.6
Glucose: 190
HbA1c: 7.5
Cholesterol: 203
Smoking: No
Hypertension: Yes
Diabetes Duration: 8



Summary

- Clinical Report — Ophthalmologist
- Patient: Name: zeba, Age: 57, BMI: 26.6
- Predicted stage: MODERATE
- Model confidence: 84.61%

Summary

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- Risk score: 96.32%
- Findings (automated lesion quantification):
 - Microaneurysms: 26.05%
 - Exudates: 30.00%
 - Hemorrhages: 1.80%
 - Cotton Wool: 0.00%
 - Neovascularization: 30.00%
 - Total Lesion Load: 57.85%
- Clinical interpretation:

Multiple dot-blot hemorrhages and early exudative changes noted. Consider ophthalmology review and OCT if macular edema suspected.
- 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.

