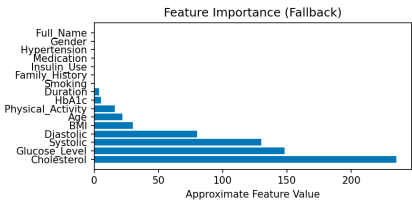
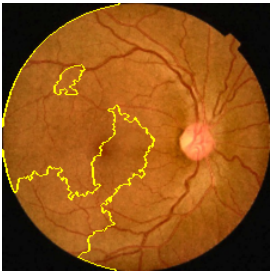


Stage: NO_DR

Metadata Snapshot

Name: jenifer
Age: 22
Gender: Female
Systolic (mmHg): 130
Diastolic (mmHg): 80
BMI: 30
Glucose: 148
HbA1c: 5.4
Cholesterol: 235
Smoking: No
Hypertension: No
Diabetes Duration: 4



Summary

- Clinical Report — Ophthalmologist
- Patient: Name: jenifer, Age: 22, BMI: 30
- Predicted stage: NO_DR
- Model confidence: 84.32%

- Risk score: 15.68%
- Findings (automated lesion quantification):
 - - Microaneurysms: 22.25%
 - - Exudates: 10.81%
 - - Hemorrhages: 3.56%
 - - Cotton Wool: 0.00%
 - - Neovascularization: 30.00%
 - - Total Lesion Load: 36.63%
- Clinical interpretation:
 - No DR signs detected. Consider routine annual screening unless clinical suspicion exists.
- 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.

