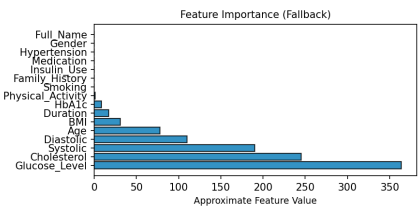
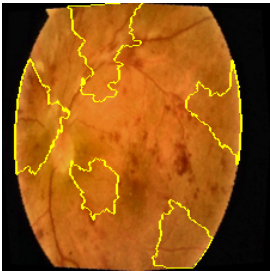


Stage: PDR

Metadata Snapshot

| |
|-----------------------|
| Name: jenifer |
| Age: 78 |
| Gender: Female |
| Systolic (mmHg): 190 |
| Diastolic (mmHg): 110 |
| BMI: 30.8 |
| Glucose: 364 |
| HbA1c: 8.6 |
| Cholesterol: 245 |
| Smoking: Yes |
| Hypertension: Yes |
| Diabetes Duration: 17 |



Summary

- Clinical Report — Ophthalmologist
- Patient: Name: jenifer, Age: 78, BMI: 30.8
- Predicted stage: PDR
- Model confidence: 83.96%

- Risk score: 96.04%
- Findings (automated lesion quantification):
 - - Microaneurysms: 25.00%
 - - Exudates: 25.00%
 - - Hemorrhages: 2.10%
 - - Cotton Wool: 0.00%
 - - Neovascularization: 25.00%
 - - Total Lesion Load: 52.10%
- 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.

