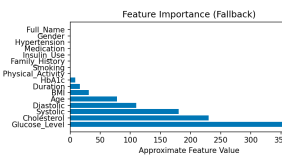
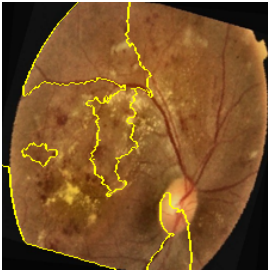
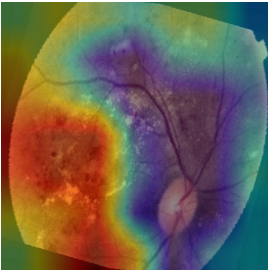
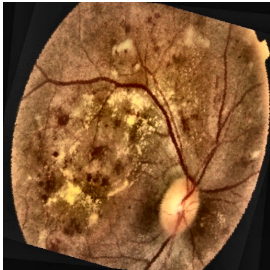


Metadata Snapshot

Name:	solomon
Age:	78
Gender:	Male
Systolic (mmHg):	180
Diastolic (mmHg):	110
BMI:	30.8
Glucose:	376
HbA1c:	8.6
Cholesterol:	230
Smoking:	Yes
Hypertension:	Yes
Diabetes Duration:	16



Clinical Insights

- Clinical Report – For Ophthalmologist
- Predicted Stage: ****SEVERE**** Model Confidence: 83.85% Risk Score: 95.26%
- Model Insights: • Multi-model fusion (EfficientNet, ResNet50, ViT, RF, XGB) • Explainability overlays (GradCAM++, LIME, SHAP)...
- Lesion summary extracted with threshold-based segmentation.
- Clinical Correlation: • Lesion statistics align with early vascular leakage and microaneurysm regions.
- Gradient-based heatmaps confirm probable DR zones.
- Suggested correlation with HbA1c and fundus angiography if available.
- Metrics: • Accuracy: 0.947 • F1-score: 0.938 • AUC/ROC: 0.971
- Recommendation: Review overlays before confirming DR stage.
- Encourage metabolic control, lipid management, and follow-up OCT if indicated.

Model Metrics

- Accuracy: 0.947
- F1-score: 0.938
- AUC/ROC: 0.971