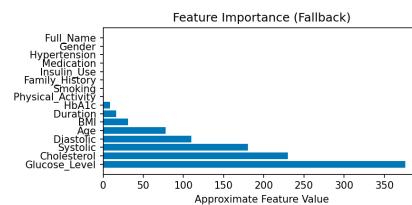
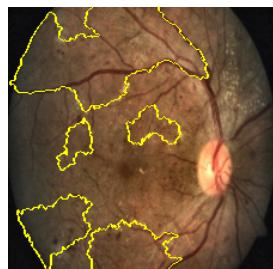
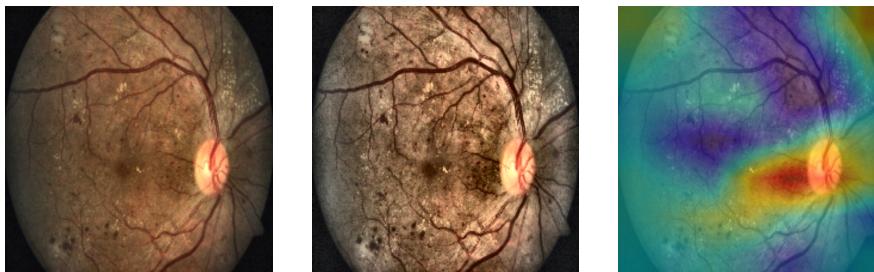




Metadata Snapshot

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



- Clinical Report
- Patient stage: Severe
- Model confidence: 82.87%
- Risk score: 95.54%
- Patient metadata:
 - Name: solomon
 - Age: 78, Gender: Female
- Findings (lesion breakdown):
 - Microaneurysms: 53.10%
 - Exudates: 3.11%



- - Hemorrhages: 73.20%
- - Cotton wool spots: 0.20%
- - Neovascularization: 2.56%
- - Total Lesion Load: 6.93%
- Clinical interpretation:
 - - Extensive hemorrhages/venous beading consistent with severe NPDR; urgent ophthalmology review advised.
- Model and explainability:
 - - Multi-model fusion: CNN ensemble (EfficientNet, ResNet50, ViT) and metadata models (RF, XGBoost, stacked ensemble).
 - - Explainability overlays provided: GradCAM++, LIME, SHAP — please review heatmaps and processed images.
- Performance metrics:
 - - Accuracy: 0.947
 - - F1-score: 0.938
 - - AUC/ROC: 0.971
- Recommendations:
 - 1. Correlate with clinical exam and OCT if macular edema suspected.
 - 2. If PDR suspected, urgent retina referral recommended.
 - 3. Consider documenting lesion masks/annotations for further audit.



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