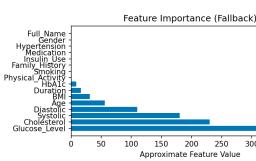
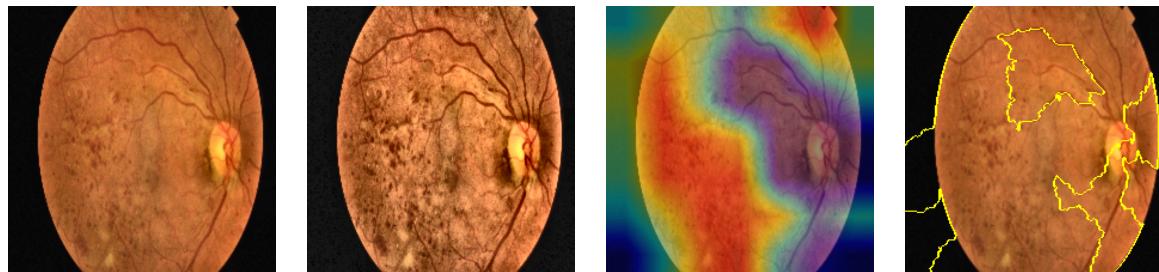


## Metadata Snapshot

Name:	Jenifer
Age:	56
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



## Patient Summary

- Hello Jenifer,
- Severe diabetic changes are seen.
- It's important to meet your eye doctor soon.
- Detected stage: Severe diabetic retinopathy.
- Findings summary: exudates 13.4%, hemorrhages 16.8%, cotton wool 0.0%, lesion percentage 30.3%.
- Model confidence: N/A.
- Risk factors noted: smoking, high blood pressure, obesity ( $BMI \geq 30$ ).
- Next steps: Book an ophthalmology appointment as soon as possible for further evaluation.
- Remember — early attention helps preserve your vision.
- 

## Clinical Insights

- VisionAI Report for Jenifer (Age: 56, BP: N/A, BMI: 30.8)
- Stage: SEVERE diabetic retinopathy.
- Summary: Widespread hemorrhages and venous beading — likely severe NPDR.
- Automated lesion analysis: exudates 13.4%, hemorrhages 16.8%, cotton wool 0.0%, lesion percentage 30.3%.
- Confidence: N/A, AUC: N/A.
- Identified systemic risks: smoking, high blood pressure, obesity ( $BMI \geq 30$ ).

- Recommendation: Urgent ophthalmology referral; systemic optimization.
- Note: Correlate with clinical findings and patient history.
- Review Grad-CAM heatmaps if available.

## Research Notes

- Subject: Jenifer Predicted Stage: Severe Lesion Summary: exudates 13.4%, hemorrhages 16.8%, cotton wool 0.0%, lesion percenta...
- Analytical Notes: High lesion density and heatmap coverage; model consistent with severe NPDR probability curve.
- Research Recommendations: - Validate lesion segmentation overlap with expert mask.
- - Include in next retraining batch to improve stage balance.
- - Evaluate GradCAM region fidelity against human grading heatmaps.

## Model Metrics

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