

Heart Disease Prediction Report

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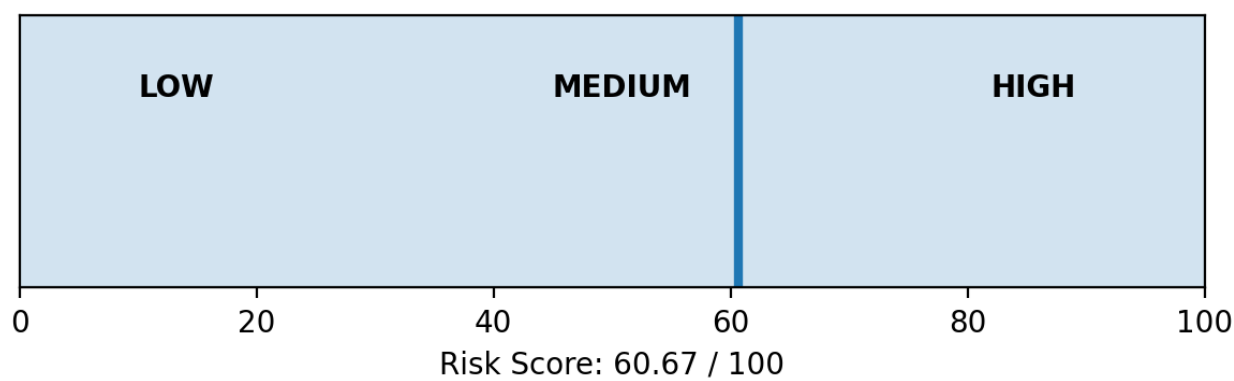
Patient Details

age: 48
sex: 1
cp: 1
trestbps: 110
chol: 229
fbs: 0
restecg: 0
thalach: 168
exang: 0
oldpeak: 1.0
slope: 2
ca: 0
thal: 3

Prediction Results

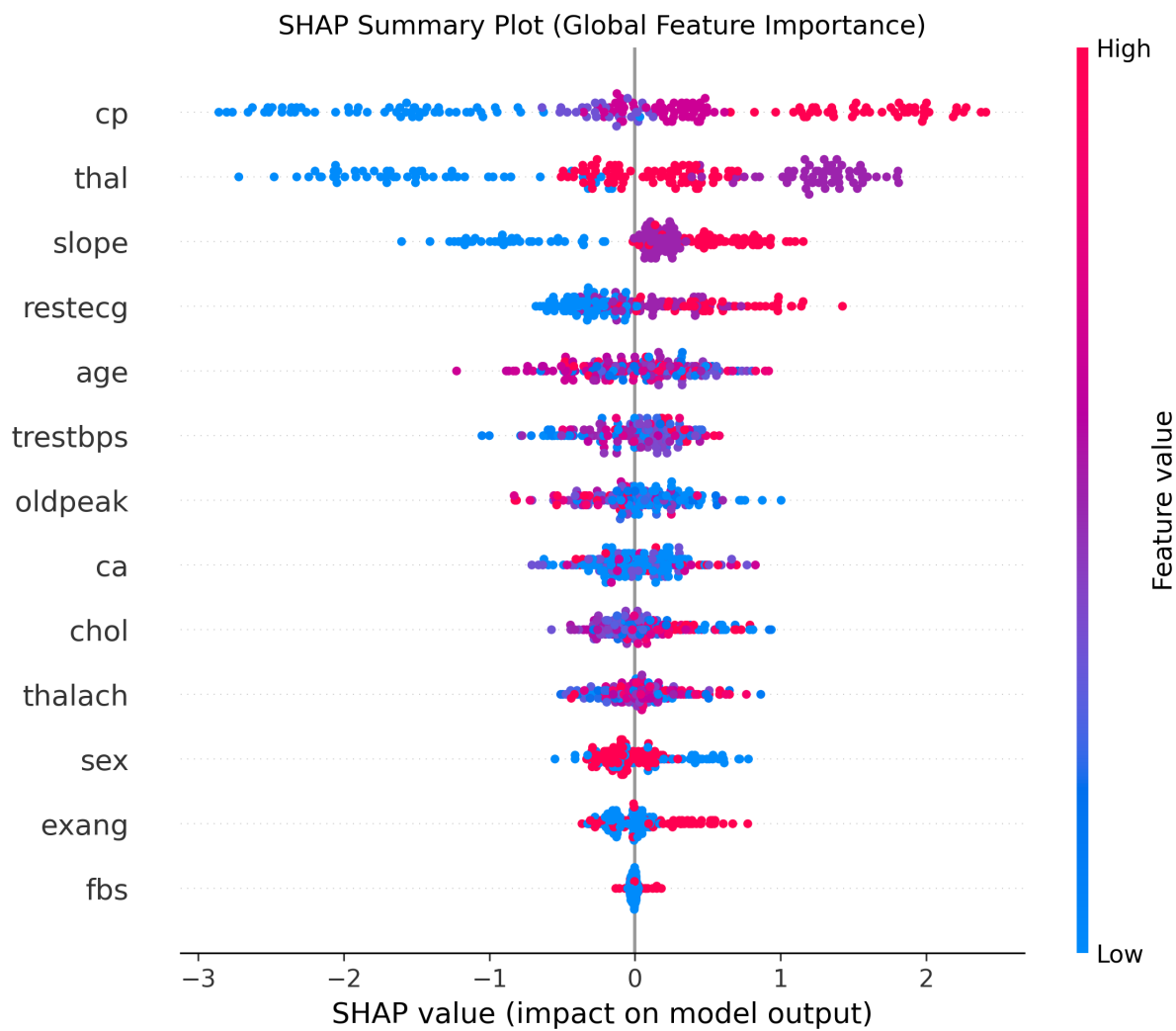
Final Prediction: HEART DISEASE DETECTED
Ensemble Confidence: 75.00%
Risk Score: 60.67 / 100
Risk Category: MEDIUM

Risk Meter



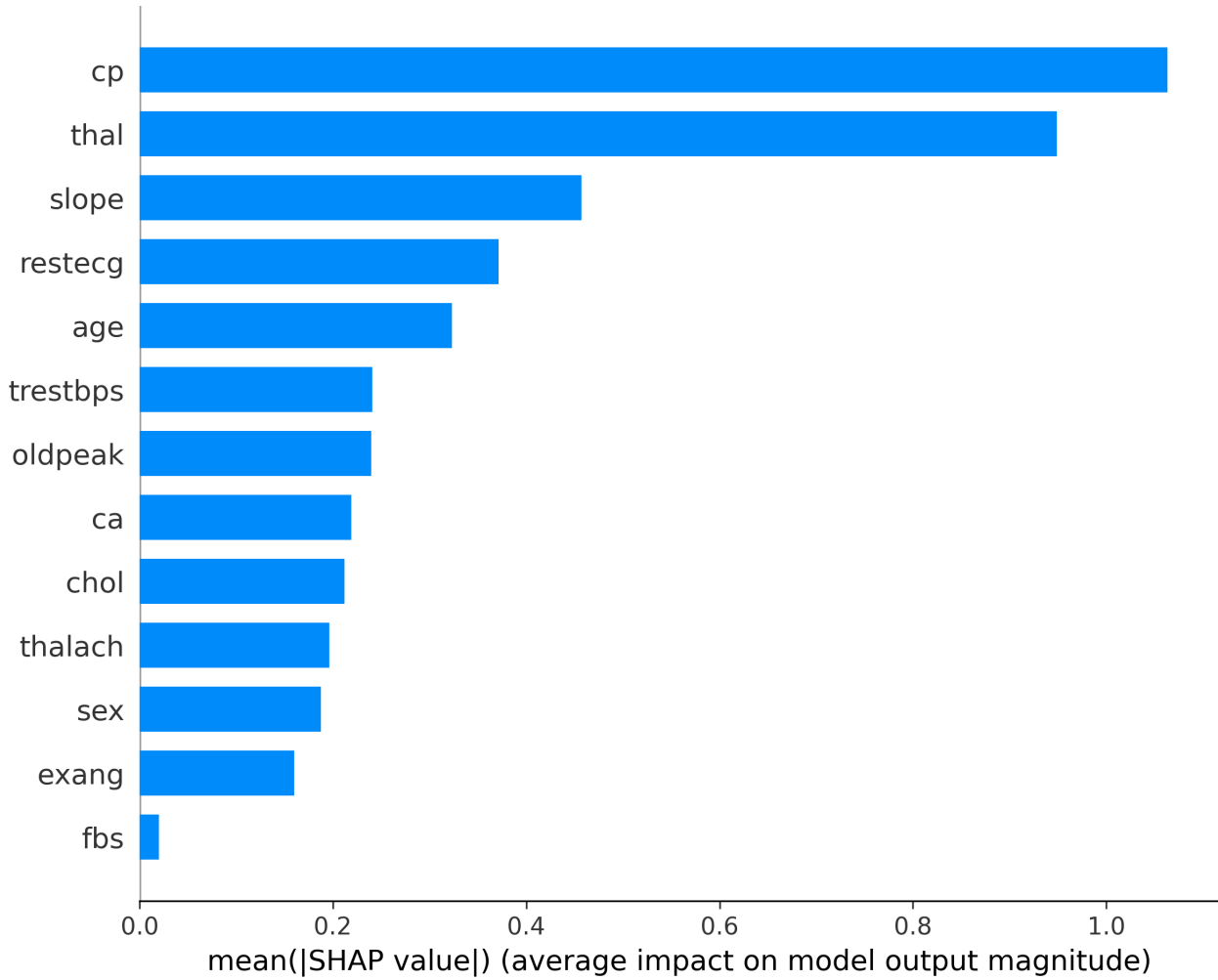
Explainable AI (SHAP)

Global SHAP Summary Plot:

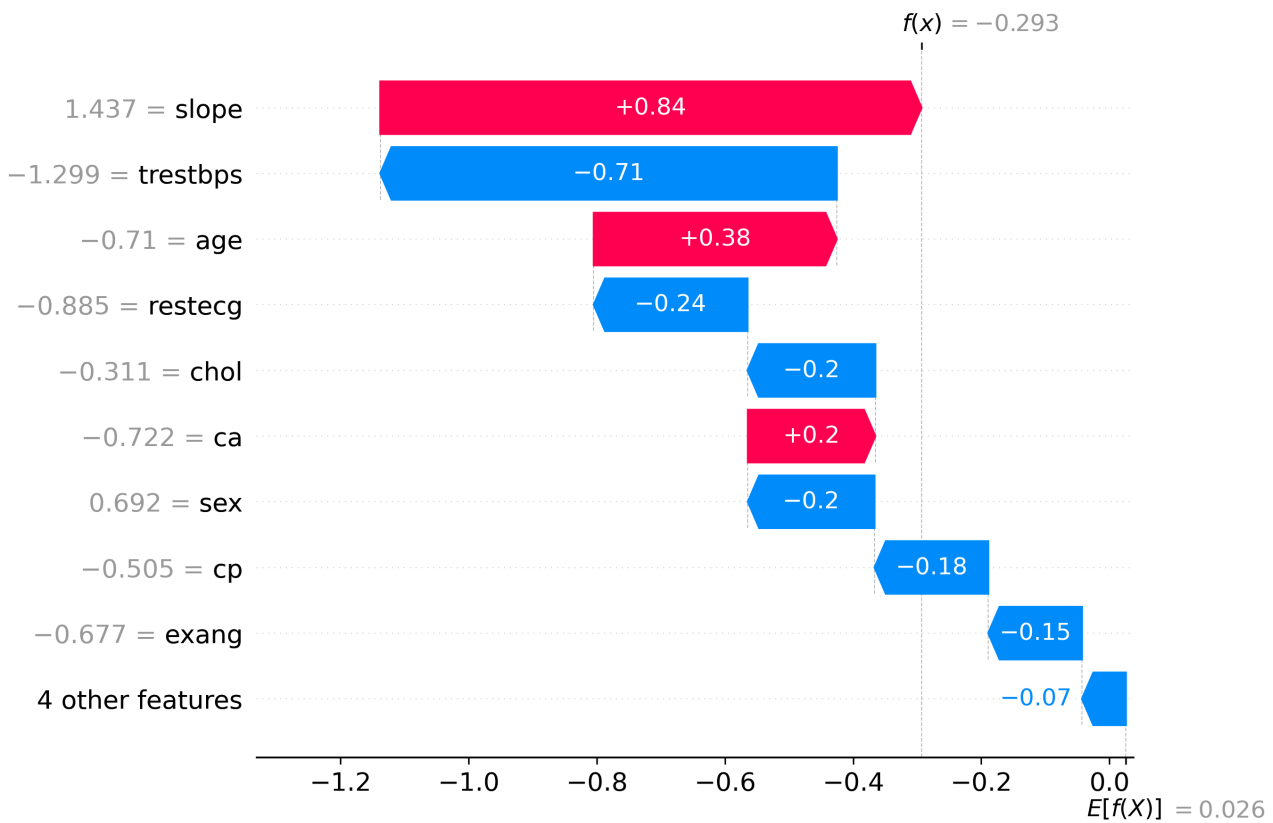


Global SHAP Feature Importance:

SHAP Feature Importance (Bar)



Local SHAP Waterfall (Current Patient):



Top Features Increasing Risk:

- slope
- age
- ca
- thalach
- fbs

Top Features Decreasing Risk:

- trestbps
- restecg
- chol
- sex
- cp

Personalized Recommendations

1. Monitor blood pressure and cholesterol regularly (every 3-6 months).
2. Follow cardio-friendly diet (low salt, low saturated fat).
3. Do daily exercise (walking/cycling) at least 30 minutes.
4. Consult a doctor if symptoms like chest pain or breathlessness occur.
5. As age increases, regular heart screening is recommended.
6. Maintain healthy BMI, sleep, and stress control.
7. Coronary vessel condition impacts risk; doctor evaluation recommended.
8. Follow strict cardiac lifestyle changes and monitoring.
9. Improve cardiovascular fitness with gradual exercise.
10. Avoid sudden heavy workouts; consult doctor if fatigue occurs.
11. Control sugar intake and check blood glucose levels.
12. Consider HbA1c test for diabetes screening.

Note: This report is generated by an AI model and should not be treated as final medical advice. Please consult a certified doctor for diagnosis.