

ECG/PPG Analysis Report

Patient ID: DEMO_001

Generated: 2025-09-18 11:29:38

Multimodal Arrhythmia & Stroke Risk Assessment

Executive Summary

Stroke Risk Assessment

Risk Level: Low

Risk Score: 0.50 (0.0 = Low Risk, 1.0 = High Risk)

Recommendation: Continue routine monitoring.

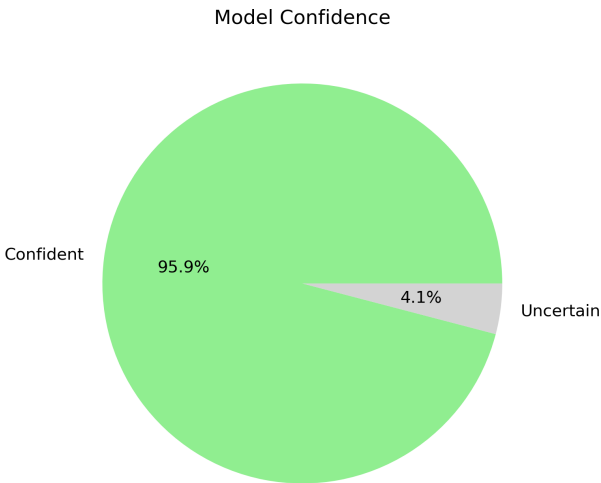
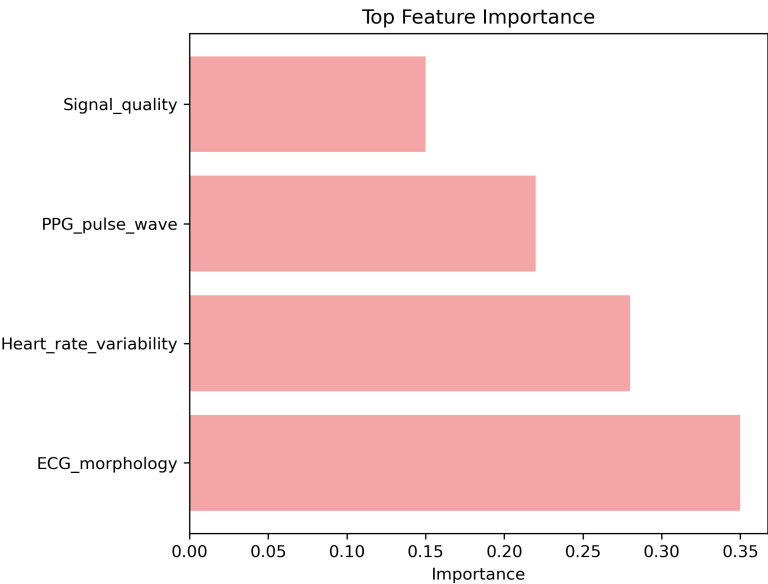
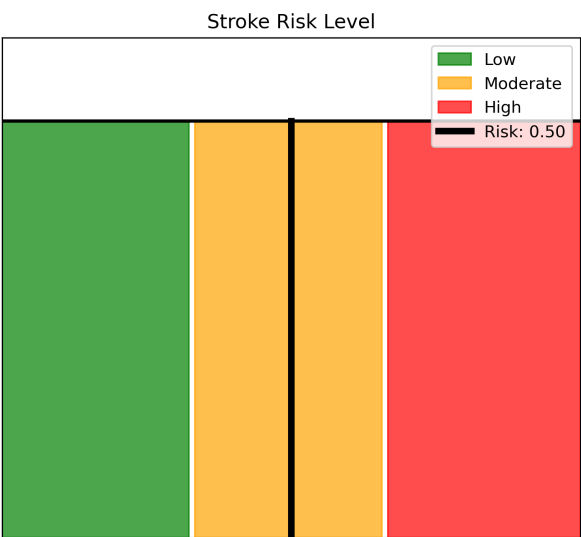
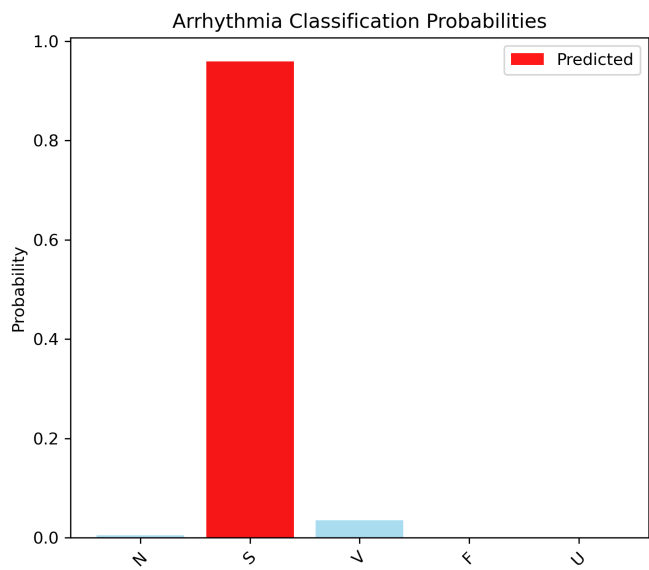
Arrhythmia Classification

Predicted Class: S

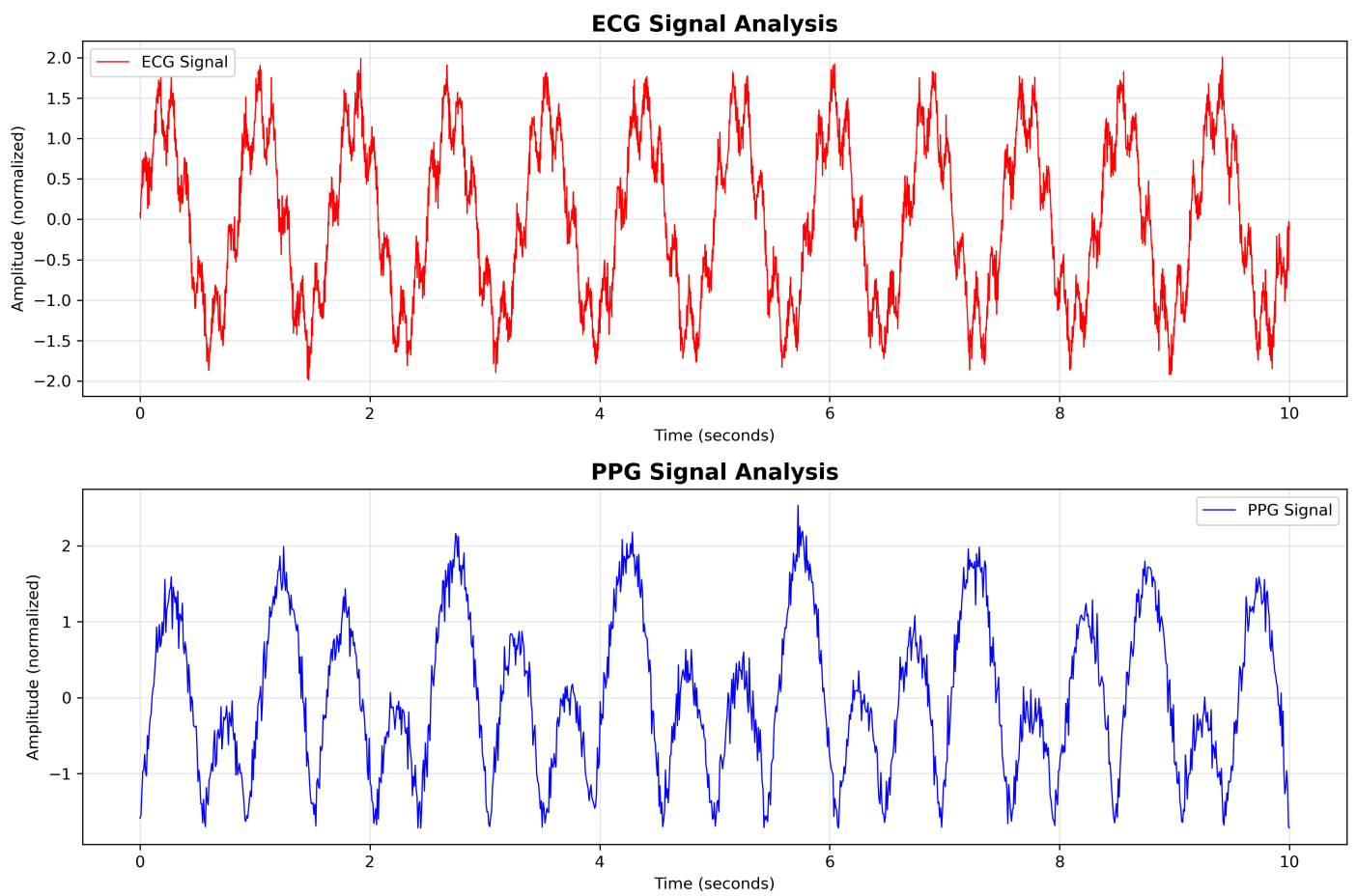
Confidence: 0.96

Clinical Significance: Abnormal rhythm detected - medical review recommended.

Summary Visualization



Signal Analysis



Model Performance Metrics

Metric	Value	Interpretation
Overall Accuracy	88.70%	Percentage of correct classifications
Sensitivity	85.60%	Ability to correctly identify abnormal cases
Specificity	92.30%	Ability to correctly identify normal cases
AUC Score	0.912	Area under ROC curve (higher is better)

Patient Information

Model Version	v1.0 - CNN-LSTM Multimodal
Processing Time	0.15
Signal Quality	Good
Analysis Timestamp	2025-09-18T11:29:38.192380
Ecg Fs	360
Ppg Fs	125
Window Seconds	10
Signal Duration	10.0

Clinical Context & Recommendations

Arrhythmia Classification

The model classified the cardiac rhythm based on ECG patterns. Key considerations:

- **Normal (N):** Regular sinus rhythm
- **Supraventricular (S):** Abnormal rhythm originating above ventricles
- **Ventricular (V):** Abnormal rhythm originating from ventricles - potentially serious
- **Fusion (F):** Mixed rhythm patterns
- **Unknown (Q):** Pattern not clearly classifiable

Stroke Risk Factors

The stroke risk assessment considers multiple physiological indicators from both ECG and PPG signals:

- Heart rate variability patterns
- Arrhythmia presence and type
- Pulse wave characteristics from PPG
- Signal morphology features

Next Steps

Urgent: Recommend immediate cardiology consultation and comprehensive cardiac evaluation.

Important Disclaimer: This report is generated by an AI system for clinical decision support. It should not replace professional medical judgment. All findings should be interpreted by qualified healthcare professionals in the

context of the complete clinical picture. The model's predictions are based on signal analysis and may not capture all relevant clinical factors.

Generated by ECG/PPG Multimodal Analysis System v1.0

For technical support or questions about this report, contact: support@example.com