

# Cardiac Arrhythmia Detection Report

Generated on February 27, 2026 at 14:28:56 | AI-Assisted ECG Analysis System

## Patient Information

**Record ID:** 219  
**Analysis Date:** 2026-02-27 14:28  
**Signal Duration:** 2.0 seconds (720 samples @ 360 Hz)  
**Lead:** MLII (Modified Limb Lead II)

## Prediction Result

■ **Uncertain Prediction – Human Review Recommended**

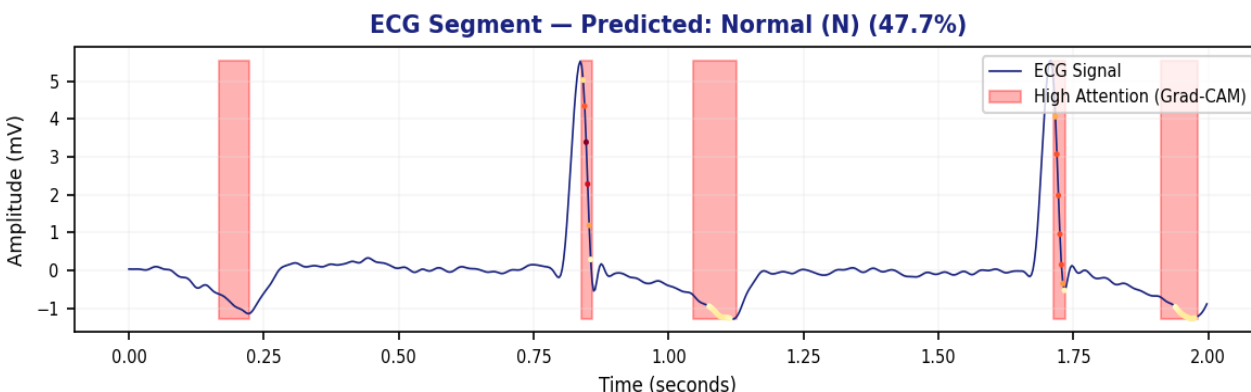
**Predicted Class:** Normal (N)  
**Confidence:** 47.7%  
**Noise Level:** 0.0%

## Class Probabilities

Class	Probability
N	47.75%
S	31.26%
V	6.38%
F	11.79%
Q	2.82%

## ECG Signal with XAI Heatmap

Red/warm regions indicate high contribution to the prediction. These highlighted areas correspond to morphological features that the AI model considers most important for its classification decision.



## Model Explanation (Grad-CAM)

Red/warm regions indicate high contribution to the 'Normal (N)' prediction. Key attention zones: samples 303–308, samples 387–401, samples 618–624, samples 698–711. These regions likely correspond to morphological features characteristic of Normal (N).

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**DISCLAIMER:** This report is generated by an AI-assisted academic prototype system and is NOT intended for direct clinical use. All predictions should be reviewed by a qualified healthcare professional. This system is designed for research and educational purposes only.