

# Cardiac Arrhythmia Detection Report

Generated on February 27, 2026 at 15:54:51 | AI-Assisted ECG Analysis System

## Patient Information

**Record ID:** 111  
**Analysis Date:** 2026-02-27 15:54  
**Signal Duration:** 2.0 seconds (720 samples @ 360 Hz)  
**Lead:** MLII (Modified Limb Lead II)

## Prediction Result

✓ Normal Sinus Rhythm Detected

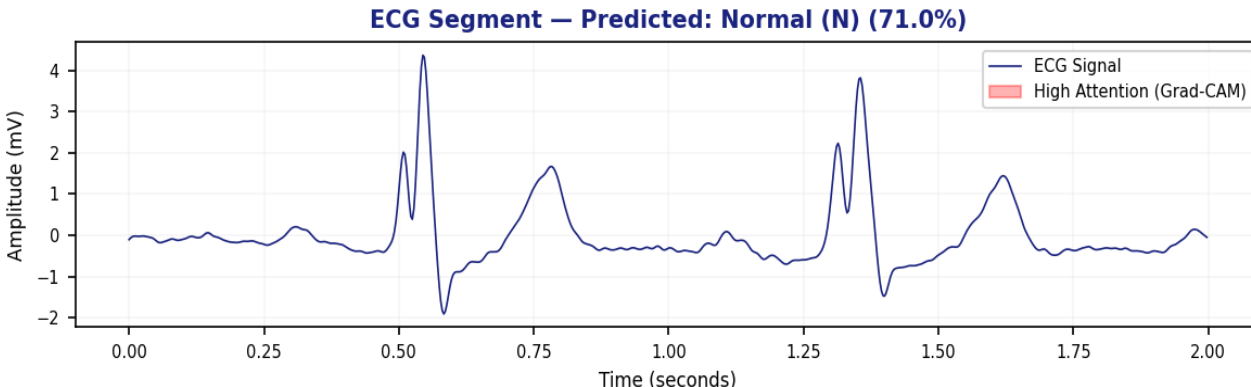
**Predicted Class:** Normal (N)  
**Confidence:** 71.0%  
**Noise Level:** 0.0%

## Class Probabilities

Class	Probability
N	71.03%
S	11.77%
V	6.12%
F	10.07%
Q	1.01%

## 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)

The model shows diffuse attention across the ECG segment for 'Normal (N)' prediction.

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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.