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'CardioCare': A Cutting-Edge Fusion of IoT and Machine Learning to Bridge the Gap in Cardiovascular Risk Management

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Abstract : This research integrates IoT and ML to predict heart failure risks, utilizing the Framingham dataset. IoT devices gather real-time physiological data, focusing on heart rate dynamics, while ML, specifically Random Forest, predicts heart failure. Rigorous feature selection enhances accuracy, achieving over 90% prediction rate. This amalgamation marks a transformative step in proactive healthcare, highlighting early detection's critical role in cardiovascular risk mitigation. Challenges persist, necessitating continual refinement for improved predictive capabilities.

Keywords : cardiovascular diseases, internet of things, machine learning, cardiac risk assessment, heart failure prediction, early detection, cardio data analysis
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