Mobile Application to Facilitate the Transmission and Interpretation of Biometric Data to Enable the Early Detection of Cardiovascular Disease

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Cardiovascular disease is the leading cause of death in the United States, with up to a third of all deaths each year attributable to the disease. Early detection allows for more reliable treatment options, leading to a higher survival rate. By 2022, more than 200 million wearable devices will have been sold. While these devices are capable of supplying an abundance of valuable biometric data, the owners of these devices are not equipped with the knowledge required to effectively interpret the data. I developed a mobile application that allows patients to securely transmit their collected biometric data to an authorized healthcare professional, who uses results from the application's multi-variable classification model to identify trends that correlate with an increased risk of cardiovascular disease. The application is capable of combining a patient's biometric data from multiple registered wearables to form complex yet accurate predictions. The data is stored and distributed within a fully-encrypted cloud database. By enabling the transmission and analysis of patients' biometric data, the application provides the general population with a simple, convenient, and non-intrusive method to obtain a potential early diagnosis of cardiovascular disease from a healthcare professional.

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