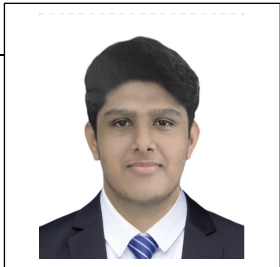
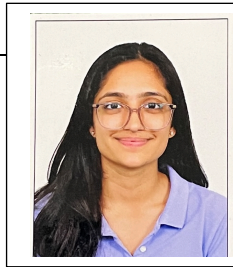


AI-POWERED EARLY DIAGNOSIS AND PERSONALISED HEALTH RECOMMENDATIONS FOR CORONARY ARTERY DISEASE (CAD) USING PREDICTIVE ANALYTICS

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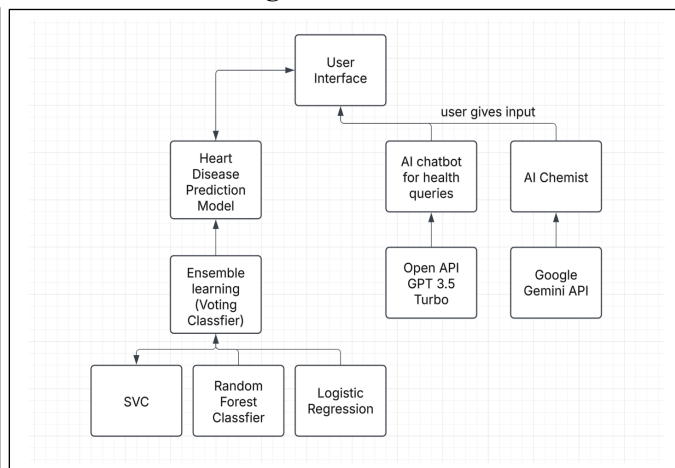
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Abstract

This project presents an AI-based system for early detection of coronary artery disease (CAD) using 13 clinical parameters and an ensemble of logistic regression, random forest, and SVM classifiers. It includes an AI chemist assistant powered by Google Gemini to handle medication-related queries through text and image inputs. A recommendation engine provides personalized lifestyle suggestions based on CAD risk. A chatbot offers general health guidance on diet, exercise, sleep, and symptoms. The system improves prediction accuracy, patient education, and accessibility in cardiovascular care.

Architecture Diagram



Significance of the Project

This project is significant as it enables early detection of coronary artery disease using ensemble machine learning models, improving diagnostic accuracy. It also offers an AI chemist assistant and lifestyle recommendations to guide users in managing their health. By combining prediction, medication support, and preventive care, it enhances patient outcomes and accessibility.

Conclusion

This project successfully integrates machine learning-based CAD risk prediction with AI-driven medication assistance and health guidance. It offers a user-friendly, accessible platform for early detection and informed management of heart health. Overall, it demonstrates the potential of AI to enhance preventive cardiovascular care.

Conference/Journal Publication Details

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