PROJECT REPORT

ON

Heart Disease Prediction

For the partial fulfillment for the award of the degree of

BACHELOR OF TECHNOLOGY

in

COMPUTER SCIENCE AND ENGINEERING

(Artificial Intelligence and Machine Learning)

Submitted By

Chirag Bhardwaj(2001921530019)

Dewang Shishodia(2001921530023)

Abhinav Yadav(2001921530002)

Harsh Aggarwal(2001921530027)

Under the Supervision of

Ms. Anju Chandna

G.L. BAJAJ INSTITUTE OF TECHNOLOGY & MANAGEMENT, GREATER NOIDA

Affiliated to

DR. APJ ABDUL KALAM TECHNICAL UNIVERSITY, LUCKNOW

2022-23

Declaration

We hereby declare that the project work presented in this report entitled "Heart Disease Prediction", in partial fulfillment of the requirement for the award of the degree of Bachelor of Technology in Computer Science & Engineering (Artificial Intelligence and Machine Learning, submitted to A.P.J. Abdul Kalam Technical University, Lucknow, is based on my own work carried out at Department of Computer Science & Engineering, G.L. Bajaj Institute of Technology & Management, Greater Noida. The work contained in the report is original and project work reported in this report has not been submitted by me/us for award of any other degree or diploma.

Signature: Signature:

Name: Chirag Bhardwaj   Name: Dewang Shishodia

Roll No: 2001921530019   Roll No: 2001921530023

Signature: Signature:

Name: Abhinav Yadav   Name: Harsh Aggarwal

Roll No: 2001921530002   Roll No: 2001921530027

Date:

Place: Greater Noida

Certificate

This is to certify that the project report entitled "Heart Disease Prediction" done by Chirag Bhardwaj (2001921530019), Dewang Shishodia (2001921530023), Abhinav Yadav (2001921530002) and Harsh Aggarwal (2001921530027) is an original work carried out by them in Department of Computer Science & Engineering, G.L Bajaj Institute of Technology & Management, Greater Noida under my guidance. The matter embodied in this project work has not been submitted earlier for the award of any degree or diploma to the best of my knowledge and belief.

Date:

Ms. Anju Chanda   Dr. Sansar Singh Chauhan

Signature of the Supervisor   Head of the Department

Acknowledgement

The merciful guidance bestowed to us by the almighty made us stick out this project to a successful end. We humbly pray with sincere heart for his guidance to continue forever.

We pay thanks to our project guide Ms. Anju Chandna who has given guidance and light to us during this project. Her versatile knowledge has cased us in the critical times during the span of this project.

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We want to thanks our friends who have always encouraged us during this project.

At the last but not least thanks to all the faculty of CSE department who provided valuable suggestions during the period of project.

Abstract

Project: Heart Disease Prediction Model using Machine Learning

This project involves predicting the possibility of having a heart disease. The aim of this project is to predict heart disease based on the medical attributes of the patient. Attributes such as Age, Gender, Blood Pressure, ST slope, Blood sugar level, Electrocardiographic result etc. are used for predicting the results.

The heart disease prediction is expected to help doctors and patients know about possibility of developing a heart disease in the near future. This prediction model will be beneficial for the patients to get themselves diagnosed in proper treatment and medication.

Tools and Modules Used:-

Programming Language – Python.

For Data Cleaning – Pandas and Numpy.

For Model Building – Scikit Learn.

Machine Learning algorithm used:- Logistics Regression, Support Vector Classifier (SVC), K Neighbors Classifier, Decision Tree Classifier, Random Forest Classifier.

Conclusion

In this paper, we followed the data science process starting with getting the data(from Kaggle or UCI ML repository) , then cleaning and preprocessing the data, followed by Exploring the data and building models, then evaluating the results and finalizing the prediction model.

Chirag Bharadwaj (2001921530019)

Abhinav Yadav (2001921530002)

Dewang Shishodia (2001921530023)

Harsh Aggarwal (2001921530027)

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