

Disease Detection using Artificial Intelligence

Samia Preity, Nasrullah Sami, Hrithik Majumdar Shibu, Mahir Mosleh
Rafid, Rafiqul Ala Mahid

Summary

HealthCal is a web application for disease prediction with an accuracy rate of approximately 80%! This tool utilizes cutting-edge machine learning algorithms to analyze a variety of factors and provide predictions for a range of health conditions, including diabetes, stroke, maternity health risks, and heart attack risks. With a user-friendly interface, our app allows for easy input of personal health information and generates personalized risk assessments. Whether a healthcare professional or an individual seeking to better understand health, our disease prediction app can help to make informed decisions and take control of wellbeing.

Strong Points

- **High Accuracy:** With the use of advanced machine learning algorithms such as MLP classifier model, SVC, and other models, HealthCal can achieve a high degree of accuracy in predicting disease risks.
- **Comprehensive Health Assessments:** By utilizing a variety of models HealthCAL can provide a comprehensive health assessment to users, allowing them to assess risks for various health conditions such as heart attack, stroke, diabetes, and maternity health risks.
- **User-Friendly Interface:** HealthCal has a user-friendly interface to operate with which will easily help even a non technical person to use this HealthCal web application.
- **Scalability:** HealthCal can be scaled up to include additional models or data sources to improve accuracy and provide more comprehensive health assessments.

Weak Points

- **Lack of User Feedback:** HealthCal does not allow users to provide feedback on their risk assessments, which could limit the ability of the system to improve over time.
- **Limitations of Risk Assessments:** While HealthCal uses machine learning algorithms, and it is not a substitute for professional medical advice, the prediction is not 100% accurate.

Future Scopes

Later in the future, this project can be developed with more developed and more efficient models. This project has been built using the basic machine learning model whereas it can be implemented using some deep learning models(CNN, ANN) which can perform well in case of training phase as well as in testing phase. Bigger dataset can be used for more accurate result. Feedback system can be introduced as well. These can be done on this project in the the long run.