

PREDICTION OF DISEASE IN HEALTH CARE SYSTEM USING MACHINE LEARNING

Dr.M.Senthil kumaran

AP/CSE

SCSVMV University

Kanchipuram

Nemani Madhuri

B.E(CSE)

SCSVMV University

Kanchipuram

Mullangi Karthika

B.E(CSE)

SCSVMV University

Kanchipuram

ABSTRACT

The "Smart Health Prediction Using Machine Learning" system, grounded on prophetic modelling, predicts the complaint of cases druggies on the base of the symptoms that the stoner provides symptoms as an input to the system. The operation has three login options stoner/ case login, croaker login, and admin login. The device analyses the symptoms given by the stoner/ case as input and provides the liability of the complaint as affair grounded on the vaticination using the algorithm. Smart health prognostications are made by the perpetration of the Naïve Bayes Classifier. The Naïve Bayes Classifier measures the complaint chance probability by considering all its features that's trained during the training phase. Exact interpretation of complaint data benefits early case/ stoner complaint vaticination and provides clear vision about the complaint to the stoner. After a vaticination, the stoner/ case can consult a specialistcroaker using a converse consulting window. It uses machine literacy algorithms and database operation ways to prize new patterns from literal data.

Keywords: Machine learning, Deep learning, Naive Bayes classifier, predictions, symptoms, interpretation, consulting.

INTRODUCTION

Machine Learning is a programming algorithm that uses sample data or preliminary collected data to optimize results with high delicacy. There are two stages of the machine learning algorithm medicine and exploration. The signs and symptom logs of the stoner/ case are used to prognosticate the illness. Machine Learning technology offers a strong operation forum in the medical sector to address health complaint vaticination enterprises rested on the stoner/case-experience. We use machine knowledge to keep track of all signs and conditions. Machine knowledge technology helps prophetic models to fleetly assay data and produce meaningful results more snappily. With the aid of technology, the stoner/ case may make an informed decision to see a croaker about their particular symptoms, performing in bettered patient health services. For each sub- field of complaint prognostications, we also demonstrated how symptom data storehouse combined with data type can help the supervisor, clinical, academic and educational aspects of Disease Prediction from Symptoms. There are colorful ways of data mining that are used to exercise the data and convert them as useful information.

By creating a model that can prognosticate the conditions rested on stoner symptoms is fairly helpful in getting fast and applicable medical installations for cases. Beforehand discovery of conditions helps croaker to give accurate drug. In the field of drug different algorithms of machine knowledge are used for prognosticating different conditions and helps the croakers to diagnose presto. rested on the input of data the delicacy of results may vary.

LITERATURE SURVEY

- [1] "A review on machine learning classification techniques for plant disease detection"
- [2] "Machine Learning and Decision Support in Critical Care ,"
- [3] "Deep Learning in Visual Computing and Signal Processing,"
- [4] "Designing Disease Prediction Model Using Machine Learning Approach,"
- [5] "Survey on Prediction and Analysis the Occurrence of Heart Disease Using Data Mining Techniques"
- [6] "Scalable and accurate deep learning with electronic health records"
- [7] "Heart Disease Prediction System using Data Mining Techniques and Intelligent Fuzzy Approach: A Review"
- [8] "The 'big data' revolution in healthcare: Accelerating value and innovation,"

SCOPE OF THE PAPER

If someone is actually diagnosed with some sort of the disease, they need to see a doctor / physician which is both time consuming and expensive too. It can also be difficult for the user to reach of doctors and hospitals so, the disease cannot Be detected . Because the Software application that saves time and resources, it could be better for the Patient to do the process runs smoothly. Smart health prediction is a web Based program that provides a user's illness based on their symptoms that the User/patient can feel

PROBLEM STATEMENT

The security enterprises listed then include Data protection, Control of identity, and access to crucial administration security for virtual machines. Data security and integrity are allowed to be the most grueling issue among five major pall security enterprises, and it may circumscribe the use of all computing. In actuality, data security enterprises include access control and crucial operation. Data confidentiality, integrity, vacuity, and traceability are all terms used to describe data security in the pall, and these conditions give significant challenges for all computing.

PROPOSED SYSTEM

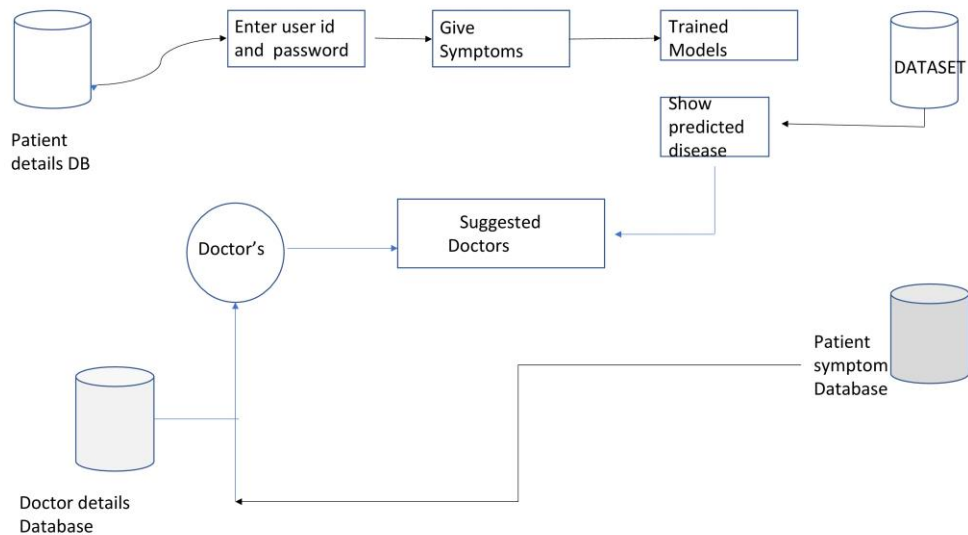
We've developed an expert system called Smart Health Prediction system, which is used for simplifying the task of croakers. A system checks a case at original position and suggests the possible conditions. It starts with asking about symptoms to the case, if the system is suitable to identify the applicable complaint also it suggests a croaker

available to the case in the nearest possible area. However, it asks some queries to the cases, still if the system isn't sure also it'll display some tests to the case, If the system isn't sure enough. Grounded on available accretive information, the system will display the result.

Advantages

- 1) This causes the complaint to be prognosticated more effectively.
- 2) also, this proposed system also consists of colorful suggestions similar as croaker details and conventions.
- 3) There's a specialist appointed for each complaint prognosticated. The details of each croaker along with their position for each complaint will be given.
- 4) Doctor's discussion cost can be avoided at an original stage specified drugs are displayed in detail.

ARCHITECTURE



RESULT

The results are achieved by gathering all kinds of diseases information along with its symptoms to process and achieve the below results and in future there can be a lot of enhancement can be done with the increasing of technology



Fig 1: Algorithm accuracy



Fig 2: New patient sign up



Fig 3: Patient login

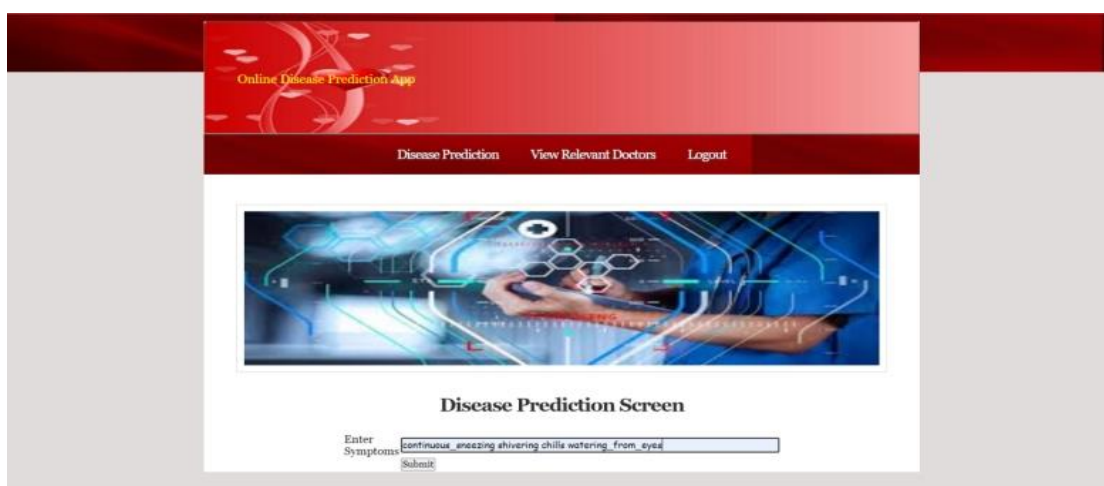


Fig 4: Disease prediction



Fig 5: Suggesting Related physicians

CONCLUSION

Data mining has greatest importance in the area of medical and technical sciences. Data mining along with the help of machine learning algorithm can create some wonders in the field of medical science. The diagnosis of the disease made easy for doctors and medication can be provided on time. The stages of various diseases can be calculated accurately and according to the patients can be treated. The knowledge gained from the data mining can be helpful to take accurate decisions. In the future by the advancement in the field of IT sector, the data mining will be much more advanced and can mine different knowledge hidden in medical data.

ACKNOWLEDGMENT

The authors would like to thank Sri Chandrasekharendra Saraswathi Viswa Mahavidhyalaya (SCSVMV) Deemed to be University for supporting this work.

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AUTHORS PROFILE

Dr.M.Senthil kumaran Associate professor in the department of computer science and engineering, their publications, presented a paper titled “Optimized Data Broadcasting in Zigbee Networks”, International Conference on Advances in Computing, February 21-22 sponsored by IJCSA and organized by Anuradha Engineering College, Maharashtra, India. “Hardware Implementation of Fingerprint based User Authentication for Embedded Image Processing & Systems”, National Conference on Current Trends in Soft Computing, January 19-20, Sri Ramakrishna Engineering College, Coimbatore, Tamilnadu, India.



N.Madhuri, Student in the department of Computer Science and Engineering, in Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya deemed to be university, Enathur, Kanchipuram. , presented a paper titled” Big Data Analytics Applications And Challenges”,International Journal Of Research In Engineering and Management .



M.Karthika, Student in the department of Computer Science and Engineering, in Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya deemed to be university, Enathur, Kanchipuram.. presented a paper titled” Big Data Analytics Applications And Challenges”,International Journal Of Research In Engineering and Management .Special Area of Interest is Data Science.