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DISEASE PREDICTION (EXERCISE AND DIET SUGGESTION) USING CNN

Prof. Ashwini Bhosale1, Mrunmay phanse2, Pravin Ghojage2, Nilesh Ambuse2 , Shubham Shahane
Assistant Professor, Department of Information Technology, Siddhant College of Engineering, Sudumbre
Student, Department of Information Technology, Siddhant College of Engineering, Sudumbre, Pune, India 2

Abstract:

These days, because of the unhealthy diet, sedentary lifestyle and pollution people are facing a lot of the health conditions that are sometimes noticeable or unnoticeable. To predict the diseases in the early stage can help people look for the appropriate treatment and get quickly recovered.
However, It is not always easy to predict the disease and a lot of the times we do notice the various symptoms but we are unable to predict the disease itself.
To solve this problem, there is a need to develop a system that can predict the diseases from symptoms and help the patient to understand their body better.

Keywords: CNN (Convolutional Neural Network), Python, Disease Prediction Machine Learning.

I. INTRODUCTION

The accuracy of predicting diseases has always been one big challenge. To overcome this problem, data mining plays an important role in medical research and analysis to predict the potentializes for a new patient before it becomes serious or fatal with early intervention which leads saved lives every day. The Artificial Intelligence (AI) system is used to predict the existence of disease according to symptoms. The input includes a database with various conditions and user's current diagnosis, as well as an individual's medical history; after predicting whether one has mild or severe forms attire based off this information alone- without any other verification steps taken into account -the AI will then classify them accordingly using the Python based disease prediction system.

The disease state can be mild, moderate or severe. If you are experiencing symptoms that do not go away with medication then it is important to see your doctor immediately and if the condition gets worse despite treatment by doctors than SYSTEM suggests visiting an alternative medicine specialist for more help in managing these issues!
The output also includes several tips on how individuals should Live life while fighting illnesses like cancer which has been linked both physically AND mentally harmful effects due out lack of proper diet.

The Disease prediction system uses the existing input of symptoms and then using the machine learning CNN algorithm the system is then able to detect the disease with accuracy percentage.

II. RELATED WORK

The goal of a system is to recommend the best matches for disease to the users. To do this, it needs accurate models that represent preferences and health conditions as well as machine learning techniques like boosting or ensemble learners so its predictions are reliable enough in real-world applications

A. HYBRID RECOMMENDATION

As we had earlier stated in section I, there are multiple systems that uses different datasets and disease prediction modules to predict the disease and help the user accordingly. Using the CF we are able to give relations among the user and the disease to come up with a result. The content based method uses the network edge domain models. These methods have significant advantages and short coming respectively.

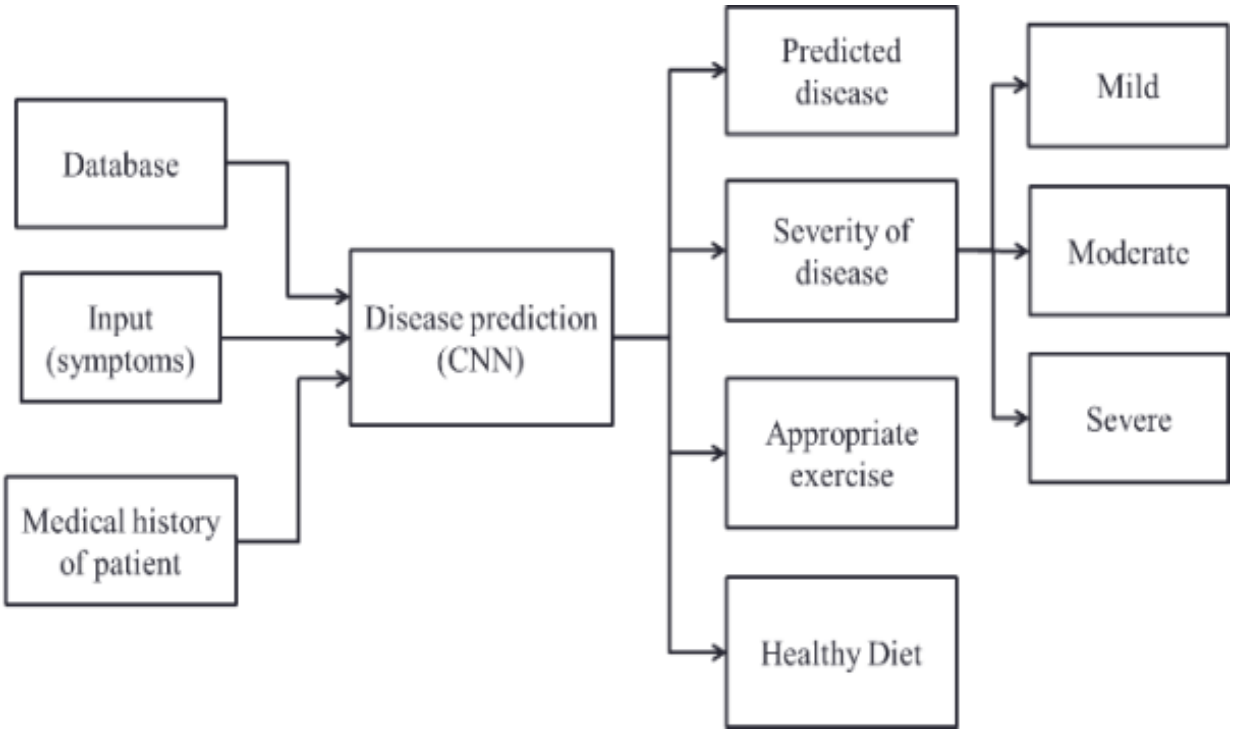
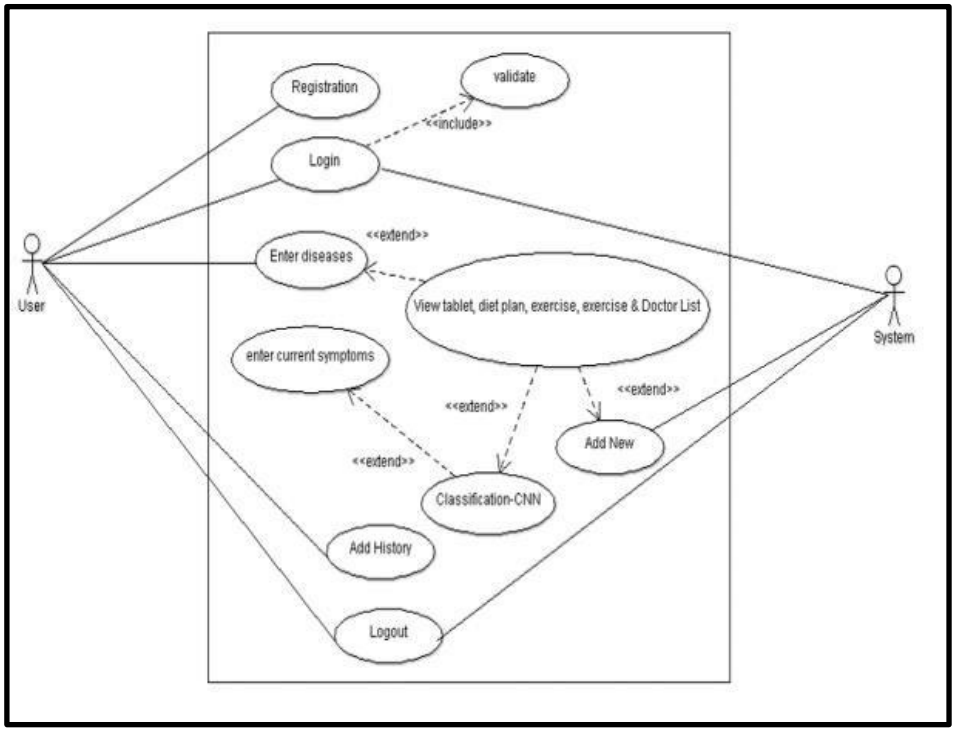


Fig.1. System Block Diagram



III.CONCLUSION

We have built a system to detect general diseases using the machine learning and KNN and CNN algorithms in python.
Due to the vast availability of the medical data, We are able to predict and tell the disease more accurately using the CNN machine learning algorithm and by taking the inputs from the user or the patient and record the data which help us to understand the level of disease

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REFERENCES

[1] Wenxing Hong, Ziang Xiong, Nannan Zheng, Yang Weng, "A Medical-History-Based Potential Disease Prediction Algorithm", A Medical-History-Based Potential Disease Prediction Algorithm IEEE Access VOLUME 7, 2019, doi 10.1109/ACCESS.2019.2940644

[2]Xu, Z., Zhang, J., Zhang, Q., & Yip, P. S. F. (2019). Explainable Learning for Disease Risk Prediction Based on Comorbidity Networks. 2019 IEEE International Conference on Systems, Man and Cybernetics (SMC).
doi:10.1109/smc.2019.8914644

[3] Xu, Z., Zhang, J., Zhang, Q., & Yip, P. S. F. (2019). Explainable Learning for Disease Risk Prediction Based on Comorbidity Networks. 2019, doi:10.1109/smc.2019.8914644