

24/7 Personal Nurse

Code Innovation Series - Sharda University
Team QuaDamners

Introduction:

This project is considered to be any persons personal virtual nurse, which monitors health issues diagnosed and faced by them, detects new diseases such as COVID-19, Skin cancer, heart disease, brain tumor, diabetes, breast cancer, prostate cancer for time being using the required values and images needed to analyze and detect. Whose UI would be like a chatbot, which will always stay active to monitor user's health, give them their health report minute to minute and provide feedback on regular basis, detect emergency and report to their family doctors or nearby hospitals.

Description

This is a chatbot kind of application which will help users to detect various types of diseases including viruses, heart rate monitoring, and fitness tracking via synchronizing it with fitness bands which will help it to track and predicts diseases accurately.

Types of diseases we can detect now are:

- Skin cancer
- Brain tumor
- Lung cancer
- Breast cancer
- COVID 19
- Heart disease
- Diabetes

The main purpose of this project is to assist the user through his overall health, such as day to day monitoring of his health, indicating users when they are facing any issue such as over pulse, cancer depth level, analyzing symptoms of any issue, emergency helps such as contacting family doctor or nearby hospitals.

This can be an application which will be used by millions in smart phones. Due to current situations many people can't visit hospitals thus this application makes it easy for them to get clarity about any disease they are facing or confirmation about any unknown disease they are facing.

System requirements:

- Python 3.5–3.8
- Python 3.8 support requires TensorFlow 2.2 or later.
- pip 19.0 or later (requires manylinux2010 support)
- Ubuntu 16.04 or later (64-bit)
- macOS 10.12.6 (Sierra) or later (64-bit) (*no GPU support*)
- Windows 7 or later (64-bit)
- Microsoft Visual C++ Redistributable for Visual Studio 2015, 2017 and 2019
- Raspbian 9.0 or later
- GPU support requires a CUDA®-enabled card (*Ubuntu and Windows*)

Tools used:

- Python
- Pycharm
- Any browser
- Dialogflow
- Github
- Any OS

Features of this application are:

- Disease detection
- Virus diagnose detection
- Health monitoring
- Emergency situation detection such as high risk, high pulse.. Etc
- Feedback system
- Analysis of symptoms
- Smart watch sync for fitness check

Target audience:

- Patients
- Quarantined people
- People who can't visit hospitals
- Below middle class and middle class people

Advantages of this application:

- Free of cost
- No need to travel to meet doctors
- Detecting diseases before its late
- 24/7 analyzation of health
- A personal medical assistant
- Regular health care reminder
- Heart rate checks

Future work:

- Creating a smart phone application
- Adding wide range of diseases detection
- Patient-doctor consultation
- 24/7 monitoring

Developing:

To develop this project it at least takes 2 months with a team with good knowledge in the field.