Parkinson's Disease Detection

Submitted By-
Dhruv Bansal (1901640100113)
Mohammad Baquir (1901640100172)

Objective

To develop a Machine Learning Model which can uniquely predict the chances of a patient having or suffering from Parkinson's Disease and to help them with early predictions and next steps in the early treatment process.

Introduction

Parkinson's disease is a nervous system disease that affects a person's ability to control movement. The disease usually starts out slowly and worsens over time. It is most commonly seen in people over 60 years old. However, up to 10% of patients are diagnosed before age 50. But with the help of an ML model, we can detect the disease at an early stage in one's life which can help with medication and stop the serious stages of the problem.

Feasibility

Technical-:

The model can be trained without much technical constraints. Processing power can be an issue when the number of features and raw data increases

Economical-:

Only requires your system. No additional funding or resources required.

Operational-:

Different machine learning models will work flawlessly until the data and features given are logical and accurate.If any data given is inaccurate, it may affect the result and accuracy of the model.

Technology Used

- Python-3
- Numpy
- Pandas
- SciKit Learn
- Matplotlib

Hardware Required

- 4GB RAM (or more)

- Processor clock speed 2GHz (or more)

- 100GB storage (or more)

Software Required

- Operating System(Windows, MacOS or Linux)

- Text Editor(VsCode, Atom, Sublime, etc can work)

- Jupyter Notebooks

- Anaconda Environment

- Google Colab

Dataset Source

https://archive.ics.uci.edu/ml/machine-learning-databases/parkinsons/

Conclusion

● More and more cases of parkinson's disease can be detected at an early stage by gathering more data and information about people with the help of a machine learning model.

● We can analyze our data and predict the most likely outcome.

● The more we know, the less we fear, and the better it is.

Future Scope

● The data model will work more accurately and will be more effective as we keep on adding more features to our dataset.

● Features will be added when we will encounter new cases and different people.
● The model will keep on learning and will improve itself