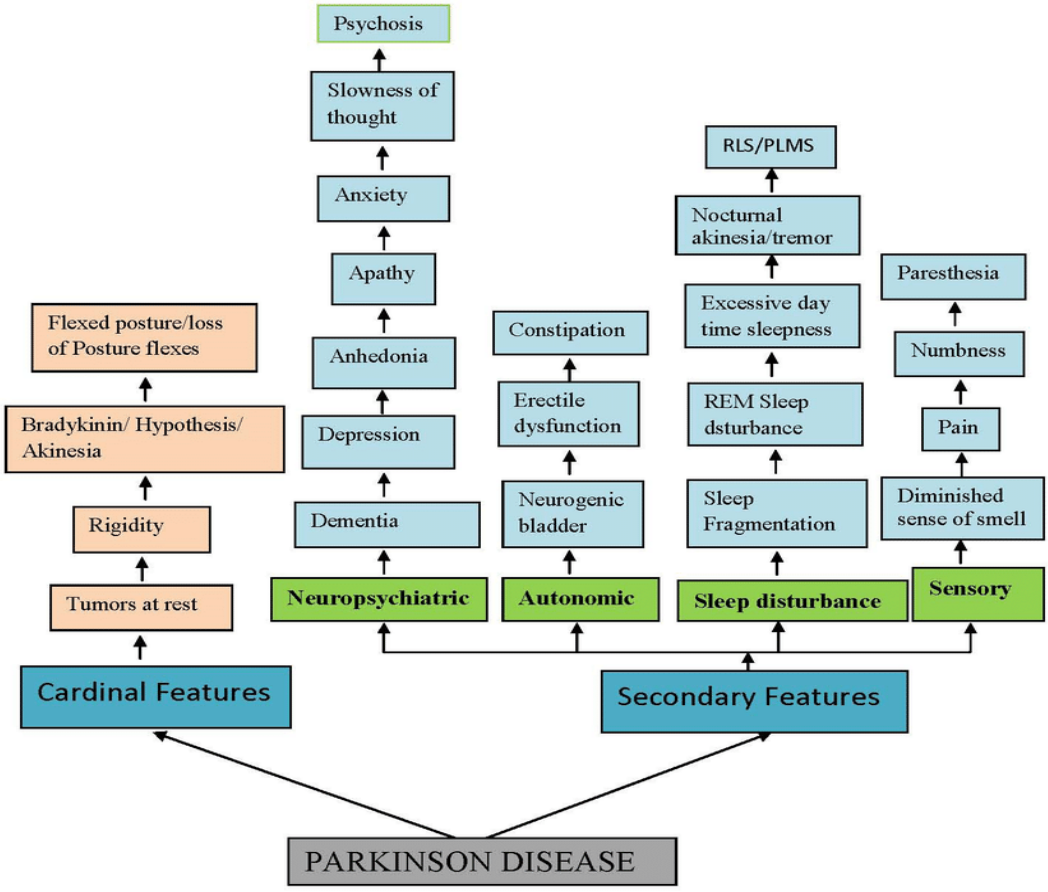
IDEATION-APPLIED DATA SCIENCE

DETECTING PARKINSONS DISEASE USING MACHINE LEARNING

The ideation phases of detection of Parkinson's disease using machine learning is achieved by the following conditions

1. Approach by the user point of view:

When a user is undergoing some similar symptoms related to the Parkinson's disease, the user is in the need to detect whether it is Parkinson's. Parkinson's disease is a progressive disorder that affects the nervous system and the parts of the body controlled by the brain and the nerves. They are mostly slow progressing but there are some symptoms can be noticed like the tremor in one hand, muscle stiffness, slowing of movement, stooped posture, lack of facial expression, decreased arm swing and soft or low voice. The user if detected of Parkinson's gets to feel fear, anxiousness, depression, stress, insecurity and in some cases denial. These can be avoided if they are detected of not having the disease. Normal symptoms are described in the below diagram.



2. Creating a point of view template:

It is based on the needs of a user to detect whether he/she has the disease. The needs, profile of the user and the insights of it.

USER	NEEDS	INSIGHT
A person having similar symptoms to the parkinson's disease.	It can help to reduce the efforts of the disease.	It can help in the early detection of the disease. It can help to ease the feelings felt by the disease.
A person assumes to have the disease	To avoid a misunderstanding	It can help to reduce the stress and other factors affecting the patient.

3. Anticipation of the solution:

When the user experiences symptoms similar to the symptoms related to parkinson's, they are in a need to detect whether they have the disease or not. The most efficient method of detection is by using the detection by the machine learning algorithm. Consultation with a doctor can be done after the initial detection by the algorithm. It can help with a faster detection and a more accurate method than guessing and other incorrect methods. With the help of the machine learning, the early detection can prevent the worsening condition of the patient and may be able to increase the life span of the afflicted patient with suitable treatments and drugs, resulting in a peaceful existence.

4. Ideate:

The ways in detecting the Parkinson's disease can be done by various methods. The most common is by doing a laboratory tests by the suggestion of a doctor. It can be the best method but it can be time consuming and of high cost. As there is a possibility of not having the disease an earlier detection can help in reducing the anxiety felt by the patient. A random guess can be done by an experienced professional but it is not accurate to depend on and it may lead to wrong diagnosis and treatment for a healthy person which may cause other diseases. With the help of the external sources, a wrong assumption can be made by themselves. An initial method to detect the disease before a doctor consultation can have a greater advantage. It can be efficiently provided by the machine learning algorithm. During the evaluation, the severity of the disease may also be validated. An earlier detection can prevent the symptoms to worsen further. By training the data set to get an accurate result can help with a correct prediction with the test data.

5. Success of the project:

This project of detecting the parkinson's disease is mainly based on the machine learning algorithm which are more accurate in the prediction model. Computer make less error compared to the humans. So, the success of the project is mostly higher than other methods.