Detecting Parkinson's Disease using Machine Learning

Parkinson's disease is a brain disorder that causes unintended or uncontrollable movements, such as shaking, stiffness, and difficulty with balance and coordination.

Main Issue: People affected with Parkinson's disease lose the nerve endings that produce norepinephrine, the main chemical messenger of the sympathetic nervous system, which controls many functions of the body, such as heart rate and blood pressure. It affects the quality of life and as age progresses it may cause many skin and urinary problems.

Problem Affects: Mostly men with minimization of nerve cells, primarily from village areas.

Boundaries: Mostly men with weak nerve cells and aged 60 or above.

Problem Statement

- To develop an application that detects the disease at a good prediction rate.
- To use a machine learning algorithm like regression or classification to identify and predict the disease.
- To pre-process the image using various data pre-processing techniques.
- To automatically detect the disease in hand drawn images of spirals and waves using OpenCV and ML algorithms.
- To build the application using Python web application interface - Flask, Computer vision with OpenCV, Machine Learning and IBM Cloud.