

Date	2 November 2022
Team ID	PNT2022TMID23224
Project Name	Project - Detecting Parkinson's Disease using Machine Learning.

- *Create a basic webpage structure*
- *Create a home page with disease description*

# Detecting Parkinson's Disease using ML

Parkinson's disease (PD) is a prevalent neurodegenerative disease affecting about 1% of the world population over the age of 55 (Nussbaum and Ellis, 2003). About five million people worldwide are estimated to have PD. PD Prevalence is expected to double by the year 2030 . Parkinson's disease (PD) patient care is limited by inadequate, sporadic symptom monitoring, infrequent access to care, and sparse encounters with healthcare professionals leading to poor medical decision making and sub-optimal patient health-related outcomes. Recent advances in digital health approaches have enabled objective and remote monitoring of impaired motor function with the promise of profoundly changing the diagnostic, monitoring, and therapeutic landscape in PD.

### PARKINSON'S DISEASE

A disease that affects nerve cells in the brain and causes tremors, poor coordination, and problems walking and moving

#### CAUSES & RISK FACTORS

Both genes & environment are affected

Scientists have identified abnormal genes that may lead to parkinson's in some people, but there is no solid proof to show it is always inherited

There are more study to determine parkinson's disease because they're more likely to experience hand-tremor or experience loss of balance

### SYMPTOMS OF PARKINSON'S

- Slow thinking
- Depression
- Difficulty swallowing
- Shaking tremors
- Loss of smell or fine hand movements
- Memory loss, dementia
- Anxiety, depression
- Hallucinations
- Depressed posture
- Aches and pains
- Constipation
- Problems with balance or walking

### Parkinson's Disease Symptoms

### Stages of Parkinson's Disease

**Stage 1:** Develop mild symptoms but able to go about day-to-day life

**Stage 2:** Symptoms such as tremors and stiffness begin to worsen, may develop poor posture or have trouble walking

**Stage 3:** Movement begins to slow down, loss of balance

**Stage 4:** Symptoms are severe and cause significant issues with day-to-day living, unable to live alone and self-care

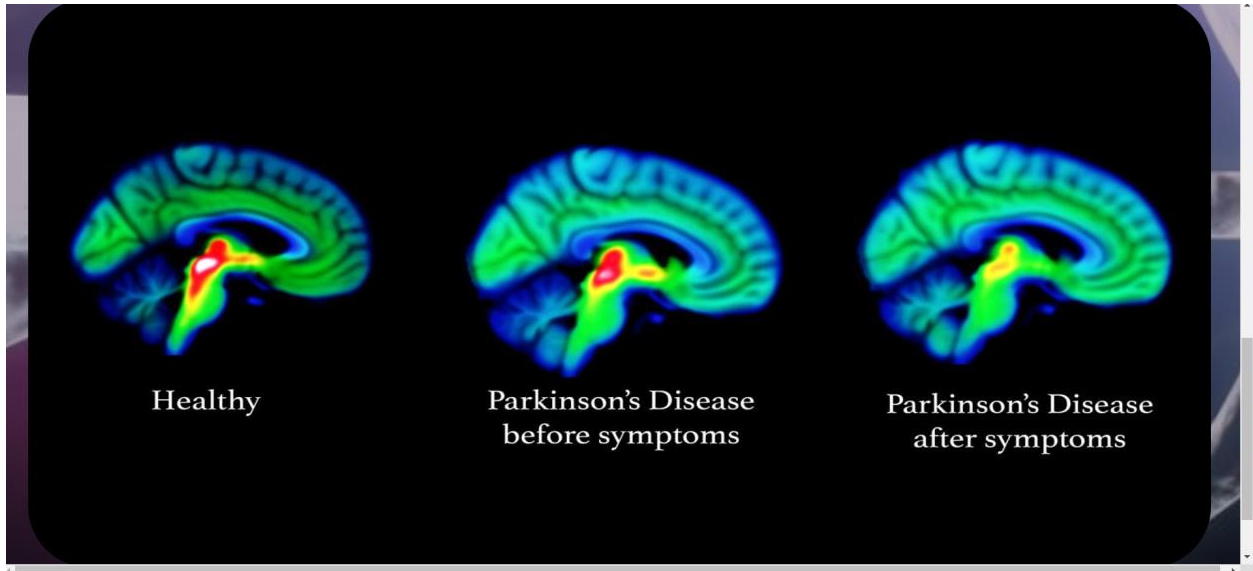
**Stage 5:** Walking or standing may be impossible at this point, people at this stage are often confined to a wheelchair or bed

### Brain Regions Affected by Parkinson's Disease

### Treatment of Motor Symptoms of Parkinson's Disease

```

graph TD
    A[Diagnosis of PD] --> B[Levodopa]
    A --> C[MAO-B Inhibitors]
    A --> D[COMT Inhibitors]
    A --> E[Anticholinergics]
    A --> F[Amantadine]
    A --> G[Deep Brain Stimulation]
    A --> H[Exercise & Physical Therapy]
    A --> I[Speech & Swallowing Therapy]
    A --> J[Occupational Therapy]
    A --> K[Psychiatric Support]
    A --> L[Supportive Care]
    A --> M[Alternative Medicine]
    A --> N[Stem Cell Therapy]
    A --> O[Gene Therapy]
    A --> P[Transcranial Magnetic Stimulation]
    A --> Q[Transcranial Direct Current Stimulation]
    A --> R[Transcranial Ultrasound Stimulation]
    A --> S[Transcranial Radiofrequency Stimulation]
    A --> T[Transcranial Laser Stimulation]
    A --> U[Transcranial Microwave Stimulation]
    A --> V[Transcranial Infrared Stimulation]
    A --> W[Transcranial Radiofrequency Ablation]
    A --> X[Transcranial Radiofrequency Coagulation]
    A --> Y[Transcranial Radiofrequency Lesioning]
    A --> Z[Transcranial Radiofrequency Neurostimulation]
    A --> AA[Transcranial Radiofrequency Neurostimulation]
    A --> AB[Transcranial Radiofrequency Neurostimulation]
    A --> AC[Transcranial Radiofrequency Neurostimulation]
    A --> AD[Transcranial Radiofrequency Neurostimulation]
    A --> AE[Transcranial Radiofrequency Neurostimulation]
    A --> AF[Transcranial Radiofrequency Neurostimulation]
    A --> AG[Transcranial Radiofrequency Neurostimulation]
    A --> AH[Transcranial Radiofrequency Neurostimulation]
    A --> AI[Transcranial Radiofrequency Neurostimulation]
    A --> AJ[Transcranial Radiofrequency Neurostimulation]
    A --> AK[Transcranial Radiofrequency Neurostimulation]
    A --> AL[Transcranial Radiofrequency Neurostimulation]
    A --> AM[Transcranial Radiofrequency Neurostimulation]
    A --> AN[Transcranial Radiofrequency Neurostimulation]
    A --> AO[Transcranial Radiofrequency Neurostimulation]
    A --> AP[Transcranial Radiofrequency Neurostimulation]
    A --> AQ[Transcranial Radiofrequency Neurostimulation]
    A --> AR[Transcranial Radiofrequency Neurostimulation]
    A --> AS[Transcranial Radiofrequency Neurostimulation]
    A --> AT[Transcranial Radiofrequency Neurostimulation]
    A --> AU[Transcranial Radiofrequency Neurostimulation]
    A --> AV[Transcranial Radiofrequency Neurostimulation]
    A --> AW[Transcranial Radiofrequency Neurostimulation]
    A --> AX[Transcranial Radiofrequency Neurostimulation]
    A --> AY[Transcranial Radiofrequency Neurostimulation]
    A --> AZ[Transcranial Radiofrequency Neurostimulation]
    A --> BA[Transcranial Radiofrequency Neurostimulation]
    A --> BB[Transcranial Radiofrequency Neurostimulation]
    A --> BC[Transcranial Radiofrequency Neurostimulation]
    A --> BD[Transcranial Radiofrequency Neurostimulation]
    A --> BE[Transcranial Radiofrequency Neurostimulation]
    A --> BF[Transcranial Radiofrequency Neurostimulation]
    A --> BG[Transcranial Radiofrequency Neurostimulation]
    A --> BH[Transcranial Radiofrequency Neurostimulation]
    A --> BI[Transcranial Radiofrequency Neurostimulation]
    A --> BJ[Transcranial Radiofrequency Neurostimulation]
    A --> BK[Transcranial Radiofrequency Neurostimulation]
    A --> BL[Transcranial Radiofrequency Neurostimulation]
    A --> BM[Transcranial Radiofrequency Neurostimulation]
    A --> BN[Transcranial Radiofrequency Neurostimulation]
    A --> BO[Transcranial Radiofrequency Neurostimulation]
    A --> BP[Transcranial Radiofrequency Neurostimulation]
    A --> BQ[Transcranial Radiofrequency Neurostimulation]
    A --> BR[Transcranial Radiofrequency Neurostimulation]
    A --> BS[Transcranial Radiofrequency Neurostimulation]
    A --> BT[Transcranial Radiofrequency Neurostimulation]
    A --> BU[Transcranial Radiofrequency Neurostimulation]
    A --> BV[Transcranial Radiofrequency Neurostimulation]
    A --> BW[Transcranial Radiofrequency Neurostimulation]
    A --> BX[Transcranial Radiofrequency Neurostimulation]
    A --> BY[Transcranial Radiofrequency Neurostimulation]
    A --> BZ[Transcranial Radiofrequency Neurostimulation]
    A --> CA[Transcranial Radiofrequency Neurostimulation]
    A --> CB[Transcranial Radiofrequency Neurostimulation]
    A --> CC[Transcranial Radiofrequency Neurostimulation]
    A --> CD[Transcranial Radiofrequency Neurostimulation]
    A --> CE[Transcranial Radiofrequency Neurostimulation]
    A --> CF[Transcranial Radiofrequency Neurostimulation]
    A --> CG[Transcranial Radiofrequency Neurostimulation]
    A --> CH[Transcranial Radiofrequency Neurostimulation]
    A --> CI[Transcranial Radiofrequency Neurostimulation]
    A --> CJ[Transcranial Radiofrequency Neurostimulation]
    A --> CK[Transcranial Radiofrequency Neurostimulation]
    A --> CL[Transcranial Radiofrequency Neurostimulation]
    A --> CM[Transcranial Radiofrequency Neurostimulation]
    A --> CN[Transcranial Radiofrequency Neurostimulation]
    A --> CO[Transcranial Radiofrequency Neurostimulation]
    A --> CP[Transcranial Radiofrequency Neurostimulation]
    A --> CQ[Transcranial Radiofrequency Neurostimulation]
    A --> CR[Transcranial Radiofrequency Neurostimulation]
    A --> CS[Transcranial Radiofrequency Neurostimulation]
    A --> CT[Transcranial Radiofrequency Neurostimulation]
    A --> CU[Transcranial Radiofrequency Neurostimulation]
    A --> CV[Transcranial Radiofrequency Neurostimulation]
    A --> CW[Transcranial Radiofrequency Neurostimulation]
    A --> CX[Transcranial Radiofrequency Neurostimulation]
    A --> CY[Transcranial Radiofrequency Neurostimulation]
    A --> CZ[Transcranial Radiofrequency Neurostimulation]
    A --> DA[Transcranial Radiofrequency Neurostimulation]
    A --> DB[Transcranial Radiofrequency Neurostimulation]
    A --> DC[Transcranial Radiofrequency Neurostimulation]
    A --> DD[Transcranial Radiofrequency Neurostimulation]
    A --> DE[Transcranial Radiofrequency Neurostimulation]
    A --> DF[Transcranial Radiofrequency Neurostimulation]
    A --> DG[Transcranial Radiofrequency Neurostimulation]
    A --> DH[Transcranial Radiofrequency Neurostimulation]
    A --> DI[Transcranial Radiofrequency Neurostimulation]
    A --> DJ[Transcranial Radiofrequency Neurostimulation]
    A --> DK[Transcranial Radiofrequency Neurostimulation]
    A --> DL[Transcranial Radiofrequency Neurostimulation]
    A --> DM[Transcranial Radiofrequency Neurostimulation]
    A --> DN[Transcranial Radiofrequency Neurostimulation]
    A --> DO[Transcranial Radiofrequency Neurostimulation]
    A --> DP[Transcranial Radiofrequency Neurostimulation]
    A --> DQ[Transcranial Radiofrequency Neurostimulation]
    A --> DR[Transcranial Radiofrequency Neurostimulation]
    A --> DS[Transcranial Radiofrequency Neurostimulation]
    A --> DT[Transcranial Radiofrequency Neurostimulation]
    A --> DU[Transcranial Radiofrequency Neurostimulation]
    A --> DV[Transcranial Radiofrequency Neurostimulation]
    A --> DW[Transcranial Radiofrequency Neurostimulation]
    A --> DX[Transcranial Radiofrequency Neurostimulation]
    A --> DY[Transcranial Radiofrequency Neurostimulation]
    A --> DZ[Transcranial Radiofrequency Neurostimulation]
    A --> EA[Transcranial Radiofrequency Neurostimulation]
    A --> EB[Transcranial Radiofrequency Neurostimulation]
    A --> EC[Transcranial Radiofrequency Neurostimulation]
    A --> ED[Transcranial Radiofrequency Neurostimulation]
    A --> EE[Transcranial Radiofrequency Neurostimulation]
    A --> EF[Transcranial Radiofrequency Neurostimulation]
    A --> EG[Transcranial Radiofrequency Neurostimulation]
    A --> EH[Transcranial Radiofrequency Neurostimulation]
    A --> EI[Transcranial Radiofrequency Neurostimulation]
    A --> EJ[Transcranial Radiofrequency Neurostimulation]
    A --> EK[Transcranial Radiofrequency Neurostimulation]
    A --> EL[Transcranial Radiofrequency Neurostimulation]
    A --> EM[Transcranial Radiofrequency Neurostimulation]
    A --> EN[Transcranial Radiofrequency Neurostimulation]
    A --> EO[Transcranial Radiofrequency Neurostimulation]
    A --> EP[Transcranial Radiofrequency Neurostimulation]
    A --> EQ[Transcranial Radiofrequency Neurostimulation]
    A --> ER[Transcranial Radiofrequency Neurostimulation]
    A --> ES[Transcranial Radiofrequency Neurostimulation]
    A --> ET[Transcranial Radiofrequency Neurostimulation]
    A --> EU[Transcranial Radiofrequency Neurostimulation]
    A --> EV[Transcranial Radiofrequency Neurostimulation]
    A --> EW[Transcranial Radiofrequency Neurostimulation]
    A --> EX[Transcranial Radiofrequency Neurostimulation]
    A --> EY[Transcranial Radiofrequency Neurostimulation]
    A --> EZ[Transcranial Radiofrequency Neurostimulation]
    A --> FA[Transcranial Radiofrequency Neurostimulation]
    A --> FB[Transcranial Radiofrequency Neurostimulation]
    A --> FC[Transcranial Radiofrequency Neurostimulation]
    A --> FD[Transcranial Radiofrequency Neurostimulation]
    A --> FE[Transcranial Radiofrequency Neurostimulation]
    A --> FF[Transcranial Radiofrequency Neurostimulation]
    A --> FG[Transcranial Radiofrequency Neurostimulation]
    A --> FH[Transcranial Radiofrequency Neurostimulation]
    A --> FI[Transcranial Radiofrequency Neurostimulation]
    A --> FJ[Transcranial Radiofrequency Neurostimulation]
    A --> FK[Transcranial Radiofrequency Neurostimulation]
    A --> FL[Transcranial Radiofrequency Neurostimulation]
    A --> FM[Transcranial Radiofrequency Neurostimulation]
    A --> FN[Transcranial Radiofrequency Neurostimulation]
    A --> FO[Transcranial Radiofrequency Neurostimulation]
    A --> FP[Transcranial Radiofrequency Neurostimulation]
    A --> FQ[Transcranial Radiofrequency Neurostimulation]
    A --> FR[Transcranial Radiofrequency Neurostimulation]
    A --> FS[Transcranial Radiofrequency Neurostimulation]
    A --> FT[Transcranial Radiofrequency Neurostimulation]
    A --> FU[Transcranial Radiofrequency Neurostimulation]
    A --> FV[Transcranial Radiofrequency Neurostimulation]
    A --> FW[Transcranial
```



Home Predict Logout

*Prevention is better than cure!*

*Parkinson Classifier*

NOTE: Upload an spiral or wave page drawn by the user in a white sheet

Choose

Predict