

Project Title: Detecting Parkinson's Disease using

Machine Learning

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Define C-S, fit into	1. CUSTOMER SEGMENT(S) CS <ul style="list-style-type: none"> Parkinson's disease is a progressive disorder that affects the nervous system and the parts of the body controlled by the nerves. Parkinson's patient have symptoms of Tremor, Slowed movement (bradykinesia), Rigid muscles, Writing changes, Impaired posture and balance, Loss of automatic movements, Speech changes. 	6. CUSTOMER CC <ul style="list-style-type: none"> Accurate prediction of disease. Early prediction of the disease. 	5. AVAILABLE SOLUTIONS AS <ul style="list-style-type: none"> The physician takes a medical history and does a physical examination. Performs a neurological examination, testing agility, muscle tone, gait and balance. PET and MRI scan also used by doctor for classification. In Machine learning field Several algorithms are proposed for classification. 	Explore AS,
	2. JOBS-TO-BE-DONE / PROBLEMS J&P <ul style="list-style-type: none"> Parkinson patient have problem of rigid muscles and writing changes. We have to collect the drawing of normal and parkinson patients. Using the drawing, we have to detect the presence of parkinson disease by applying necessary algorithm. 	9. PROBLEM ROOT CAUSE RC <ul style="list-style-type: none"> Lack of data New to field of study 	7. BEHAVIOUR BE <ul style="list-style-type: none"> Random forests are preferred over decision trees is that they are stable and are low variance models. They also overcome the problem of overfitting present in decision trees. Since they use bootstrapped data and random set of features, they ensure diversity and robust performance. They are immune to curse of dimensionality as they do not consider all the features at one time for individual trees. The main disadvantage of random forests is their lack of interpretability. 	Focus on J&P, tap into BE, understand
Identify strong TR & EM	3. TRIGGER\$ TR <ul style="list-style-type: none"> Parkinson disease are easy to treat if we detect in early stage. Provide more efficient algorithm to detect the parkinson disease in its early stage. 	10. YOUR SOLUTION SL <ul style="list-style-type: none"> The project aims at presenting a solution for parkinson's disease detection using suitable machine learning algorithms. Algorithms such as random forest and decision trees are used for disease prediction. We will load the dataset into dataframe and get the feature and label, preprocess the data and classify it. 	8. CHANNEL \$ of BEHAVIOUR CH <p>8.1 Online:</p> <ul style="list-style-type: none"> If we use online channels, then the Customer can check their result with online comparison using our platform. <p>8.2 Offline:</p> <ul style="list-style-type: none"> offline channels If the disease predicted then the customer need to go to Hospital for Treatment in offline mode. 	Extract online & offline CH of BE
	4. EMOTIONS: BEFORE / AFTER EM <p>Before:</p> <ul style="list-style-type: none"> Does not know about outcome of prediction. <p>After:</p> <ul style="list-style-type: none"> Got idea to detect parkinson disease in early stage. Certain about prediction and to take necessary 			