Template

DETECTING PARKINSONS DISEASE USING MACHINE LEARNING

Using pattern recognition techniques and multiple machine learning approaches, Parkinson's disease is classified and the risk is predicted to the extent using the given speech signal and speech data from the patients. The dataset is collected from the UCI repository. This model is aimed to provide greater accuracy than other complex models. In this project, Light Gradient Boosting Model is used to classify Parkinson disease. The main objective of this project is to train, test the data and predict the data to find the similarities and differences among the data and also classify based on the LGBM model as it shows higher accuracy compared to the other models. And the other objective is to check which classification algorithm gives high accuracy rate and less error rate for the given data. The Pycaret package is being used for the training and classification purpose the csv data has to be uploaded to the system and the backend takes care of the prediction process and gets the csv files with the prediction results to download for the user which can be used for later analysis. The Pyplot library is used for the dynamic graphs that are displayed on the final frontend of the system which is created using the datagram of the final csv file with other pyplot parameters required for the plot generation.

10 minutes to prepare

1 hour to collaborate

2-8 people recommended

Share template feedback

Before you collaborate

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

10 minutes

A **Team gathering**
Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.

B **Set the goal**
Think about the problem you'll be focusing on solving in the brainstorming session.

C **Learn how to use the facilitation tools**
Use the Facilitation Superpowers to run a happy and productive session.

Open article

Define your problem statement

The main aim is to predict the prediction efficiency that would be beneficial for the patients who are suffering from Parkinson and the percentage of the disease will be reduced. Generally in the first stage, Parkinson's can be cured by the proper treatmentSo it's important to identify the PD at the early stage for the betterment of the patients. The main purpose of this research work is to find the best prediction model i.e. the best machine learning technique which will distinguish the Parkinson's patient from the healthy person. The techniques used in this problem are KNN, Naïve Bayes, and Logistic Regression. The experimental study is performed on the voice dataset of Parkinson's patients which is downloaded from Kaggle. The prediction is evaluated using evaluation metrics like confusion matrix, precision, recall accuracy, and f1-score. The author used feature selection where the important features are taken into consideration to detect Parkinson's.

5 minutes

PROBLEM

The prediction efficiency that would be beneficial for the patients who are suffering from Parkinson and the percentage of the disease will be reduced

Key rules of brainstorming

To run an smooth and productive session

- Stay in topic.
- Defer judgment.
- Go for volume.
- Encourage wild ideas.
- Listen to others.
- If possible, be visual.

Brainstorm

Write down any ideas that come to mind that address your problem statement.

10 minutes

Maneesh Vijay V.I.

- SYSTEM SHOULD COMMUNICATE WITH PATIENTS IN ALL ASPECTS.
- IT SHOULD BE WORTHY TO ALL PATIENTS.
- SYSTEM PREDICTION SHOULD BE ACCURATE.
- HUMANS SHOULD BE CURED.

Sivakumar M.S.

- USEFUL TO PEOPLE WITH NO PRIOR KNOWLEDGE ABOUT IT.
- IT SHOULD BE IMPLEMENTED WITH HELP AND SUPPORT SERVICES.
- IT SHOULD BE IMPLEMENTED WITH HELP AND SUPPORT SERVICES
- AT EMERGENCY STAGE,IT SHOULD SUMMON DOCTORS ON SPOT.

Kishore Kumar.M

- MEDICATIONS SHOULD BE CORRECTLY MENTIONED.
- IT SHOULD BE COMPATIBLE WITH FUTURE TECHNOLOGIES.
- IT SHOULD SHOW SAME AS THE DOCTORS PRESCRIPTION
- IT SHOULD BE TRUSTED.

Hariharan.K

- SYSTEM SHOULD BE EASILY MAINTAINED.
- IT SHOULD ALSO PREDICT ALL KINDS OF KIDNEY PROBLEMS.
- IT SHOULD REACH TO EVERYONE.
- EASY ACCESS TO PREDICTED INFORAMTION.

Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you and break it up into smaller sub-groups.

20 minutes

CATEGORY 1

- System prediction should be accurate
- System should be easily maintained.
- System should not harm humans at any cost.
- It should be implemented with help and support services.

CATEGORY 2

- System should communicate with patients in all aspects.
- Medications should be correctly mentioned.
- It should take less time for prediction.
- Easy access to predicted inforamtion.

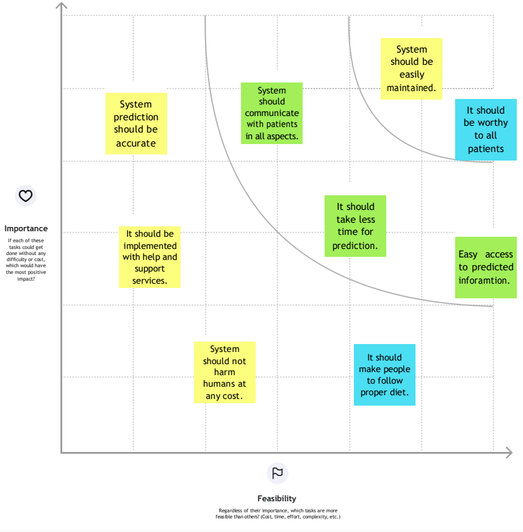
CATEGORY 3

- It should be worthy to all patients
- It should make people to follow proper diet.
- Useful to people with no prior knowledge about it.
- It should be trusted

Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

20 minutes



After you collaborate

You can export the mural as an image or pdf to share with members of your company who might find it helpful.

Quick add-ons

A **Share the mural**
Share a view link to the mural with stakeholders to keep them in the loop about the outcomes of the session.

B **Export the mural**
Export a copy of the mural as a PNG or PDF to attach to emails, include in slides, or save in your drive.

Keep moving forward

Strategy blueprint
Define the components of a new idea or strategy.
Open the template

Customer experience journey map
Understand customer needs, motivations, and obstacles for an experience.
Open the template

Strengths, weaknesses, opportunities & threats
Identify strengths, weaknesses, opportunities, and threats (SWOT) to develop a plan.
Open the template

Share template feedback