

M.L PROJECT BATCH - G1

Page No.

Date

- 6 weeks program.
- contact@talentbattle.in.

PROJECT TITLE :-

STRESS DETECTION USING ML.

Prerequisites to learn M.L.

- Statistics
- Probability
- Linear Algebra
- Calculus
- Programming language.

Week 1 :-

Reference case study

STRESS DETECTION with Machine Learning
and Deep Learning using multi-modal physiological
Data.

- A person's standard of living is significantly affected by his emotional states such as stress and anxiety.
- Stress is often described as a complex psychological and behavioral state resulting from the perception of significant imbalance between demands placed on individual and their perceived ability to meet those demands.

Acc to american institute of stress
^{workers}
80% - feel stress

• half of them say they need help in learning

How to manage stress

and

42% say their co-workers need help such
help.

OBJECTIVE :-

The objective of the proposed work is to automatically detect stress condition of an individual by using the physiological data recorded during stressful condition/situation.

WEEK 3:-

M.L SPECIFIC

classification of machine learning :-

1. supervised
2. unsupervised
3. Reinforcement

4. Semi-supervised

↳ combination of supervised and unsupervised.

MODEL DEVELOPMENT STEPS:-

1. collecting Data

2. Preparing Data

↳ ETL E - Extract

process T - Transform

comes in individual - Load.

picture

3. choosing a Model

* various algorithms

4. Training the Model

5. Evaluating the model

6. Making Predictions, Parameter Tuning

7. Making Predictions.

Binary classification

* CLASSIFICATION PROBLEM *.

Algorithm for our model :-

* Naive Bayes classifier *

Bernoulli's

Dataset from Kaggle :-

* Naive bayes :-

→ It is basically a supervised learning algorithm which is based on Bayes theorem and used for solving classification problems

Bayes theorem.

$$P(A|B) = \frac{P(B|A) P(A)}{P(B)}$$

where,

$P(A|B)$ = Posterior probability.

$P(B|A)$ = Likelihood probability

$P(A)$ = Prior probability

$P(B)$ = Marginal probability.

Application :-

Sentiment analysis.

Spam filtering,

medical data classification.

* Important points:

"Keywords" in TEXT.

libraries used in the project:

* Numpy, pandas

These libraries are used to import the dataset into the dataframe and then helps to perform operations on the data (manipulation operations).

* nltk (natural language tool kit)

→ These library is used when our dataset contains textual format or it is used when there is text involve during analysis.

* Stemmer()

Stemmer is a function which converts words into their root word i.e

joy, excitement, cherish → happy

dancing, performance → Dance

Raining, Rainful, → Rain

Rootword.

* CountVectorizer()

Count vectorizer function converts the textual data or categorical data into numeric data as all machine learning model does not understand text based or cannot processed with text or categorical data.

It converts by counting if same words are repeated in the text and according to there importance

it provides a specific numeric values to it.

Implementation of Function

function add function of base class defined
overriding of salary method has implemented with same
functionality overridden with addition operation

Offer 10% increment function is also
overridden in derived class in overriding
method base class can be used. In derived class
overriding function always first in recall

After showing previous function can be used
by derived class from base class

import <-----> std::cout <-----> if
cout <-----> cin <-----> endl <-----> cout
<-----> cout <-----> cout <-----> cout

ANSWER :-

function overriding is used to implement
same function with different behaviour
function overriding is implemented by
overriding function in derived class
with same name function in base class
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