RAJESWARI VEDACHALAM GOVT ARTS COLLAGE

BCA DEPARTMENT

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A REVIEW OF LIVER PATIENT ANALYSIS METHODS USING MACHINE LEARNING

DESCRIPTIONN

- Liver diseases averts the normal function of the liver. This disease is caused by an assortment of elements that harm the liver.

- This disease diagnosis is very costly and complicated.

- Therefore, the goal of this work is to evaluate the performance of different Machine
- Learning algorithms in order to reduce the high cost of liver disease diagnosis.

- In this project we will analyse the parameters of various classification algorithms and compare their predictive accuracies so as to find out the best classifier for determining the liver disease.

- Based on this study, Random Forest with the highest accuracy outperformed the other algorithms and can be further utilised in the prediction of liver disease and can be recommended to the user.

DATA COLLECTION AND PREPARATION

- DATA COLLATION AND PREPARATION
  - IMPORTING THE LIBRARIES
  - READ THE DATASET
- DATA PREPARATION
  - HANDLING MISSING VALUES
  - HANDLING CATEGORICAL VALUES
  - HANDLING IMBALANCE DATA

EXPLORATORY DATA ANALYSIS

- ❖ **Descriptive statistical**
- ➢ **Visual representation of the data distribution Analysis of correlation between two variables.**
- ➢ **Identification of outliers and their handling.**

- ✓ **UNIVARIATE ANALYSIS**
- ✓ **BIVARIATE ANALYSIS**
- ✓ **MULTIVARIATE ANALYSIS**

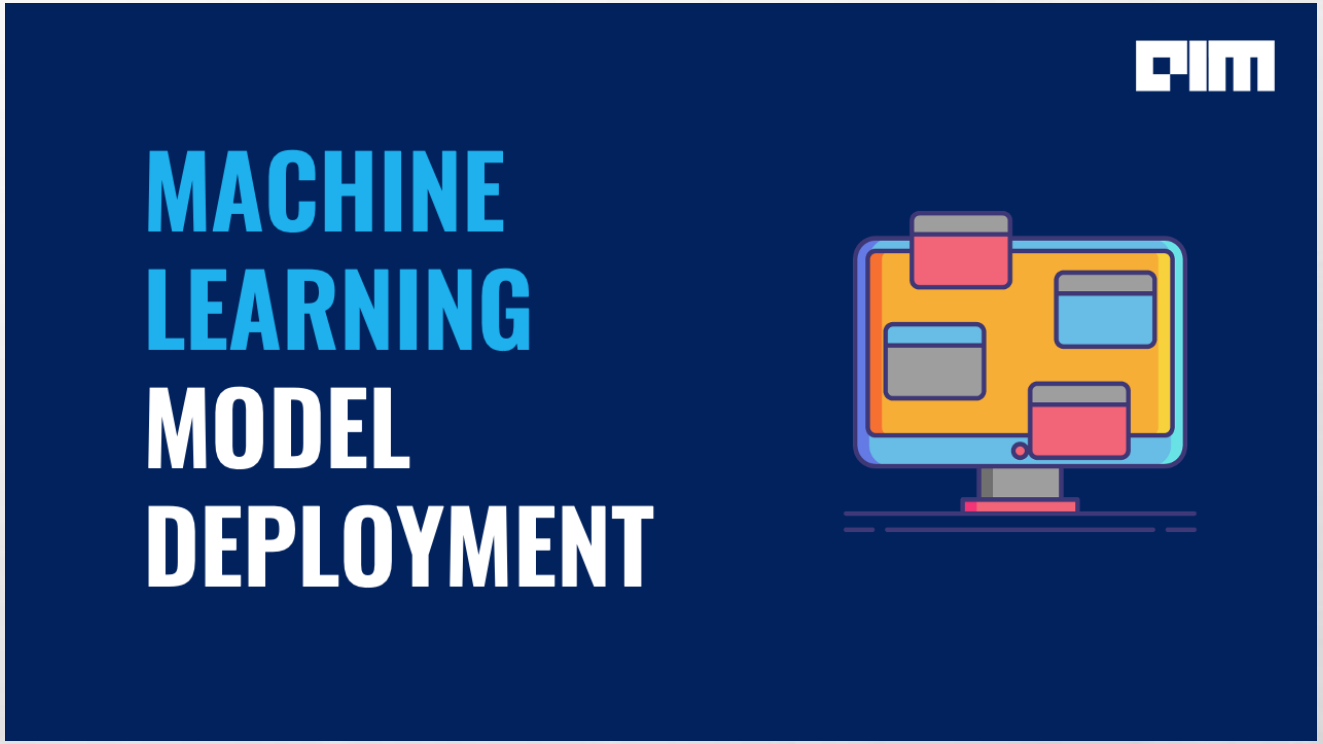
MODEL EVALUATION

- MODEL EVALUATION IS THE PROCESS OF USING DIFFERENT EVALUATION METRICS TO UNDERSTAND A MACHINE LEARNING MODEL'S PERFORMANCE, AS WELL AS ITS STRENGTHS AND WEAKNESSES.

- EXPLANATION OF MODEL ACCURACY AND LIMITATIONS

MODEL DEPLOYMENT

- ✓ SAVE THE BEST MODEL
- ✓ BUILDING HTML PAGES
- ✓ BUILD PYTHON CODE
- ✓ RUN THE APPLICATION



FUTURE WORK

- AREAS FOR FUTURE RESEARCH AND IMPROVEMENT.
- POTENTIAL WAYS TO IMPROVE THE MODEL'S PERFORMANCE.
- IMPORTANCE OF CONTINUED DEVELOPMENT AND UPDATING OF THE MODEL.

CONCLUSION

- RECAP OF THE PROBLEM STATEMENT AND ITS SOLUTION.
- SUMMAARY OF KEY FINDINGS AND CLNCLUSIONS.
- CONCLUSION MACHINE LEARNING IS A POWERFUL TOOL FOR MAKING PREDICTIONS FROM DATA.

THANK YOU