Liver Disease Prediction

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Introduction

- Liver disease is a significant health concern worldwide, affecting millions of people and posing substantial challenges for early detection and treatment.
- The use of predictive modeling and machine learning techniques has emerged as a promising approach to assist healthcare professionals in diagnosing liver diseases more accurately and efficiently.

Problem Statement

The problem at hand involves developing a precise predictive model for diagnosing liver disease using machine learning techniques.The aim is to create a reliable tool capable of accurately identifying individuals at risk of liver disorders. This predictive model holds the potential to revolutionize healthcare by facilitating early detection.

Data Collection

- Utilize historical data from previous Liver patients surveys or records to train and validate the machine learning model.
- Collect data from online platforms which contains different attributes of liver disease prediction.

Model Building

Classification models:

- Support Vector Machine(svm).
- Decision Tree Classifier.
- Random Forest Classifier.

Evolution Metrics

Common evaluation metrics to assess the performance of classification models :

- Confusion matrix
- Accuracy
- Precision
- F1-score
- Recall

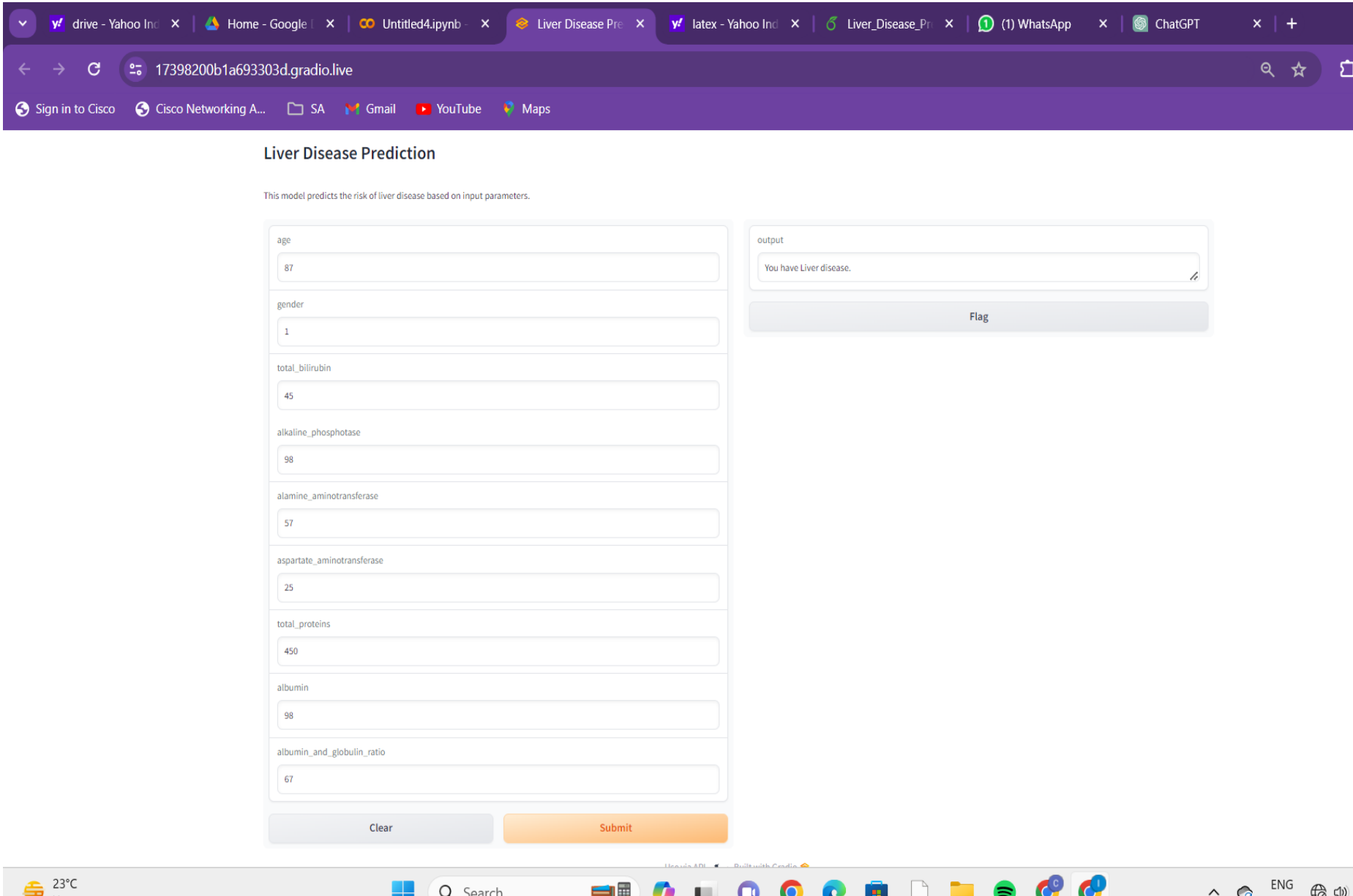
Deployment

- Programming Language:Python.
- Version Control:Git Lab.
- Framework:Gradio

Accuracy Results

- Decision Tree Classifier:0.721
- SVM:0.713
- Random Forest Classifier:0.852

Result and Evaluation



Bibliography

- Kaggle
- ChatGPT
- Youtube-Nerchuko Channel

Conclusion

By enabling early detection and intervention, this model has the potential to significantly improve patient outcomes, optimize healthcare resource allocation, and reduce the burden of liver disease on healthcare systems

Thank You