

Here are two problems that you need to solve. Please submit any codes that you write, along with a ppt (max 5 slides) explaining the algorithm (word limit 100) used along with the results obtained (define any metric that can best explain the accuracy of your model).

Dataset 1:

This dataset contains TripAdvisor scores along with features describing the reviewers and hotels located in The Strip, Las Vegas.

Question 1: Build a classification/regression model to predict scores for any new reviewer.

Question 2: Identify features that are most relevant in the model.

Dataset 2:

This breast cancer database was obtained from Dr. Wolberg's office at the University of Wisconsin Hospitals, Madison. Each record here contains values for different morphological and pathological features of a tumor dissected from any given patient. The class column indicates whether the patient has been characterized as the benign tumor or a malignant tumor.

Question 1: Build a classifier to identify patients with benign or malignant tumor based on the tumor characteristics

Question 2: As an oncologist, you would want to reduce your false positives as well as false negatives.

- a. Identify the number of false positive and false negatives
- b. Improve your classification model to reduce patients who are being predicted as having benign tumor but actually have malignant tumor.