

Homework1

Name:

Student ID:

Statistical Learning for Data Science

Due time: March 6, 2023 (Monday) 12:00am

1 Problem 1

Provide an illustration from reality for each of the subsequent concepts, along with your individual perspective.

- (a) Statistical Learning Problem
- (b) Data (both quantitative and qualitative)
- (c) Statistic
- (d) Supervised Learning
- (e) Unsupervised Learning

2 Problem 2

Provide an illustration for each of the subsequent two concepts to expound upon their differentiation and correlation, accompanied by your individual perspective:

- (a) Sample versus Population
- (b) Estimator versus Parameter
- (c) Probability density function versus Histogram
- (d) Statistical Learning versus Machine Learning

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Exercises in Section 2.4 of the textbook (An Introduction to Statistical Learning): 1, 2, 3, 4, 5, 6, 7