

A Comparison of Logistic Regression Vs. LDA for Wine Quality Detection and Breast Cancer Detection

Julien Verecken*, Srikanth Amudala[†] and Kamal Maanicshah[†]

*address1

Email:

[†] Concordia Institute of Information Systems Engineering,
Concordia University, 1455 Boulevard de Maisonneuve O, Montréal, QC H3G 1M8
Email: srikanth.amudala@mail.mcgill.ca; kamal.mathinhenry@mail.mcgill.ca

Abstract—The write-up discusses the implementation and performances of logistic regression and LDA models based on the results obtained by applying the models on a wine quality data set and a breast cancer data set. Based on statistical analysis we perform feature extraction instead of using all the features.

I. INTRODUCTION

In this project we first implement Logistic regression and then use a Linear Discriminant Analysis model for classification tasks. Given a data set containing n samples, $X = x_1, x_2, \dots, x_n$ with each sample $X_i = x_{i1}, x_{i2}, \dots, x_{im}$ where m is the number of features.

II. DATASET

III. FEATURE EXTRACTION

IV. RESULTS

V. DISCUSSION