

Assignment Title & Example

SENG 474 Assignment #

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1 Introduction

Example of Large text

Example of small

1.1 SubSection Example

Some equation examples to folow

$$\alpha^X * C_0 \tag{1}$$

The values α and C_0 were fixed while X was incremented with each model starting at 0 and ending at 9.

Looking at the actual error values at the closest point (Training: $\approx 4.25\%$; Testing: $\approx 4.6\%$) and the furthest point (Training: 2% ; Testing: $\approx 4.6\%$) they only ever differ by a maximum of 2.6% . Since the training error are small and relatively close to each other we can say this method produces best fit models.

Unoptimized (No KFold)	Error	Regularization Value
Training	0.019833333333333335	6.940406893818192
Testing	0.038	0.25888585

Table 1: Best Unoptimized Logistic Regression Errors.

Using Z as 1.96, I calculated the following confidence interval $3.8\% \pm 0.8\%$. Meaning the true testing error is between 3.0% and 4.6% .

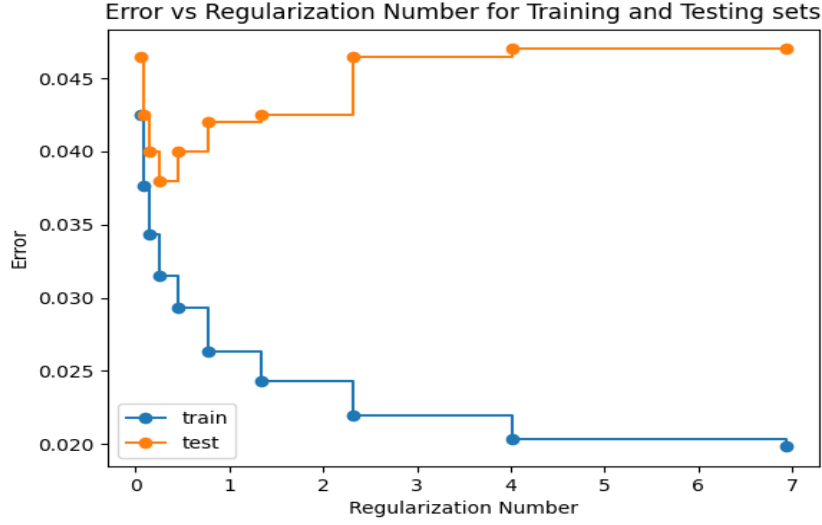


Figure 1: Unoptimized Logistic Regression Error Results

2 Split Table Example

Unoptimized (No KFold)	Error	Regularization Value
Training	0.019833333333333335	6.940406893818192
Testing	0.038	0.25888585
Optimized (KFold)	Error	Regularization Value
Training	0.024166666666666666	1.4361450195312502
Testing	0.043	1.4361450195312502

Table 2: Best Unoptimized & Optimized Logistic Regression Errors.

3 References (IEEE Examples)

[1] "*RBF SVM parameters*", Scikit-learn, Accessed on: Feb 27, 2021.[Online]. Available: https://scikit-learn.org/stable/auto_examples/svm/plot_rbf_parameters.html