# Introduction to Machine Learning

### Lab 1

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### Assignment 1

#### 2.3

#> predicted #> actual non-spam spam #> non-spam 695 242 #> spam 193 240

#### 2.4

#> predicted #> actual non-spam spam #> non-spam 639 298 #> spam 178 255

#### 2.5

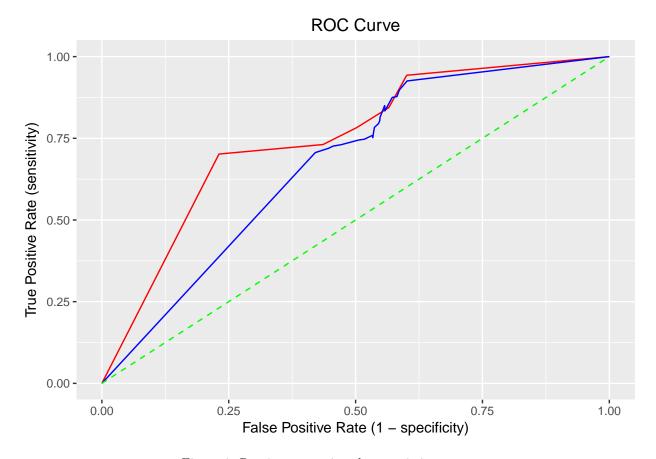


Figure 1: Receiver operating characteristic curves.

## Assignment 2

### 2.2

### Distribution

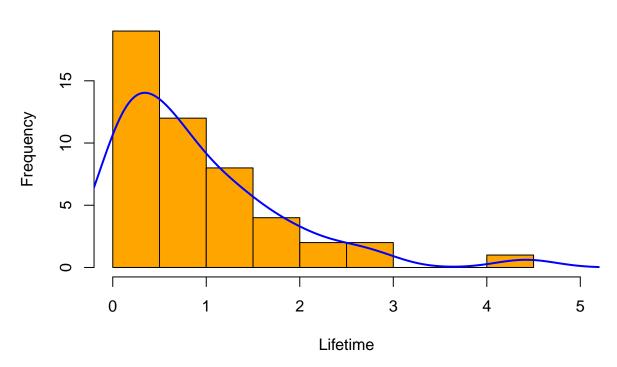


Figure 2: Data Distribution.

## Log-Likelihood

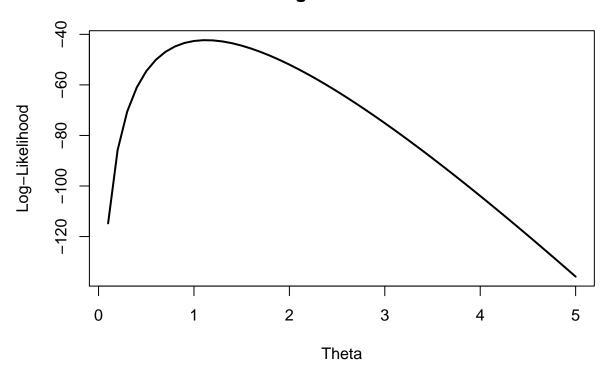


Figure 3: Likelihoods.

## Log-Likelihood

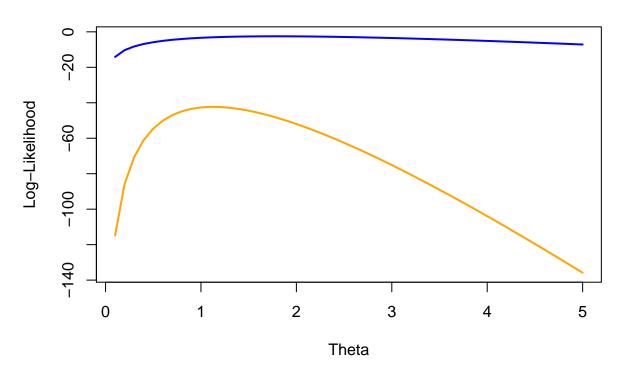


Figure 4: Likelihoods.

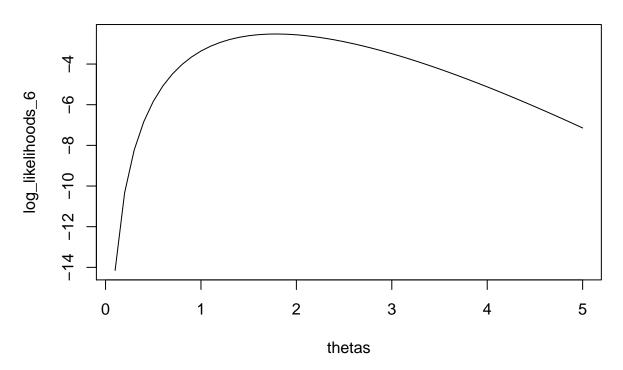


Figure 5: Likelihoods.

## Log-Posterior

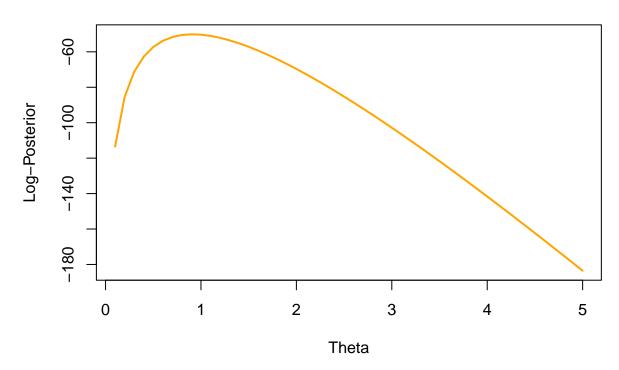


Figure 6: Likelihoods.

#### Histogram of new\_data Histogram of data\$Length Frequency Frequency

Figure 7: Likelihoods.

data\$Length

new\_data