

Final Report for Red Wine Analysis

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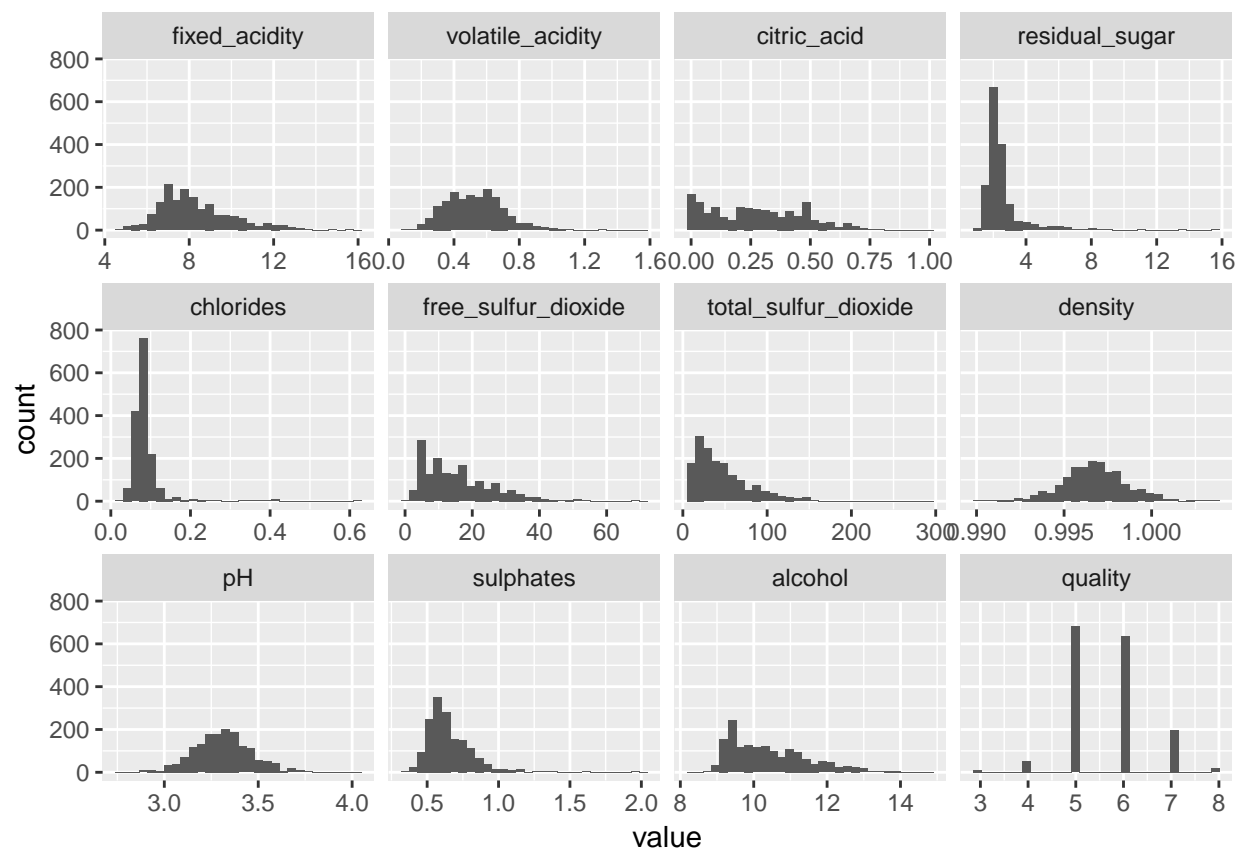
Introduction

The purpose of this document is to report the proposed statistical models for classification of red wine.

Description of Data

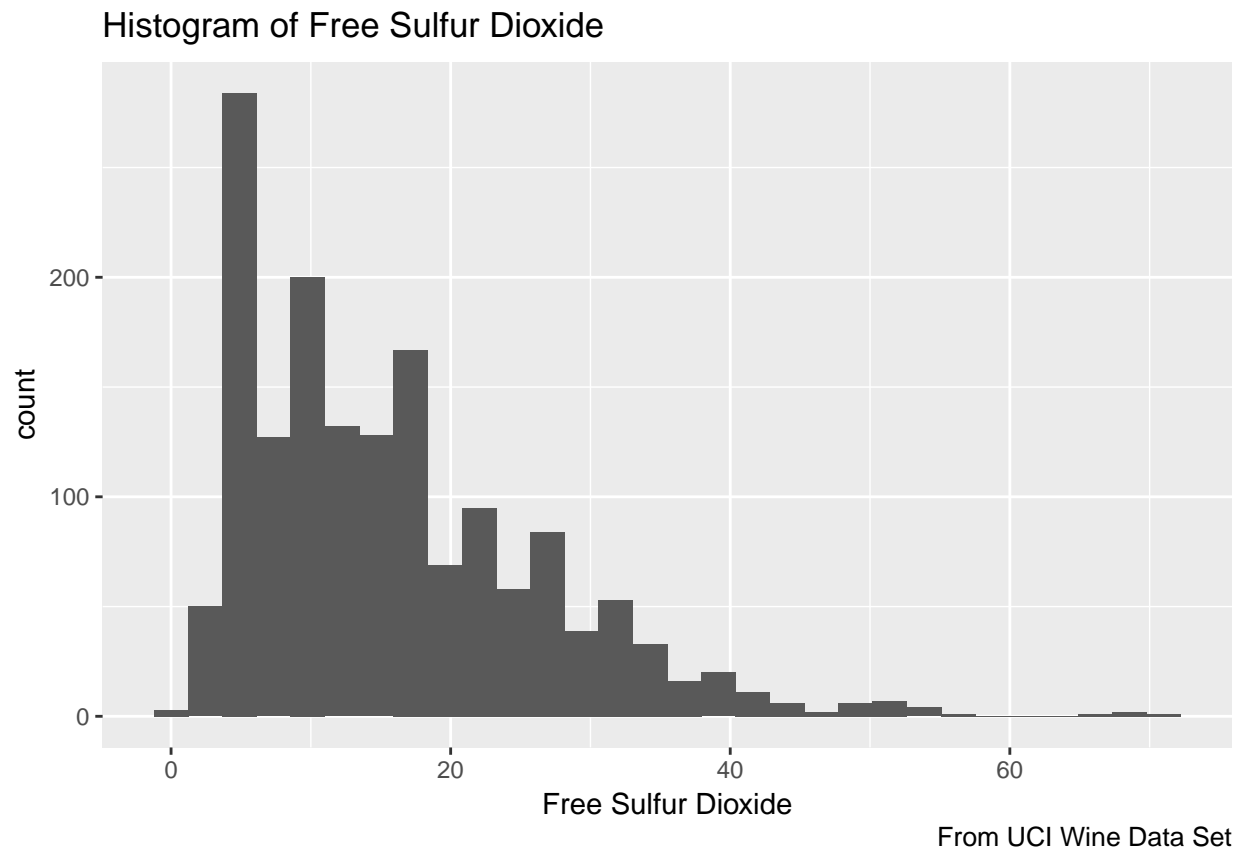
The data set provided is the Wine dataset from UC Irvine. It consists of 1599 with a total of 12 predictors. These predictors include the following fixed_acidity, volatile_acidity, citric_acid, residual_sugar, chlorides, free_sulfur_dioxide, total_sulfur_dioxide, density, pH, sulphates, alcohol, quality with the quality feature being associated with the judgement of the individual wine's quality. Quality is the feature of interest for the dataset as the vintner is interested in judging the wine's quality through objective means rather than today's subjective method of averaging the 1-10 point judgment of tastetesters. The distribution of these different criteria can be seen below:

```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```



Reviewing the individual components there appears to be a slight irregularity with total free sulfur dioxide. This can be seen in the histogram of this variable.

```
## Using classification as id variables
```



Method

Regression

Classification

Comparison of Models

Discussion

Conclusion

Issues

You can also embed plots, for example:



Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.