When to Visit Toronto

A classification model predicting when there will be good weather

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Introduction to the Data

The data consists of weather observations in Toronto from January 1, 1900 to April 27, 2017 taken from the Canadian Centre for Climate Services. Variables used in this analysis include: location, date, mean temperature, and total precipitation.

Classification Tree Model

0.8 of the data was used to fit the model, while 0.2 was used to test the accuracy, sensitivity, and specificity of the model. The following is the confusion matrix for the classification tree.

```
##
## tree1_pred  bad good
##        bad  5674  671
##        good  548  863
```

Thus, the model has the following accuracy:

- Accuracy = 84.25%
- Sensitivity (true positive rate) = 61.16%
- Specificity (true negative rate) = 89.38%

Bibliography

Environment and Climate Change Canada (2018, September 27). Climate Data Extraction Tool. Aem. https://climate-change.canada.ca/climate-data/#/daily-climate-data