Mini-Project 3: Bad Connection Prediction

Version 1.0

CSC215, Fall 2018

Oct 22nd 2018

Prepared by: Chandini Nagendra

Siddharth Chittora

Contents

[1. Problem Statement 2](#_Toc527209358)

[2. Methodology 2](#_Toc527209359)

[3. Experimental Results and Analysis 3](#_Toc527209360)

[4. Task Division 3](#_Toc527209361)

[4.1. Chandini Nagendra: 3](#_Toc527209362)

[4.2. Siddharth Chittora 3](#_Toc527209363)

[5. Project Reflection 3](#_Toc527209364)

[6. Additional Features 3](#_Toc527209365)

# Problem Statement

This project aims to build a network intrusion detector, a predictive model capable of distinguishing between bad connections, called intrusions or attacks, and good normal connections.

# Methodology

# Experimental Results and Analysis

# Task Division

## Chandini Nagendra:

* Report

## Siddharth Chittora

* Report

Discussed together on how to improve the model and came up with the solution discussed in the additional features section.

# Project Reflection

challenges

what did you learn as a team

# Additional Features

### Tree-based feature selection

Tree-based estimators (see the **[sklearn.tree](http://scikit-learn.org/stable/modules/classes.html" \l "module-sklearn.tree" \o "sklearn.tree)** module and forest of trees in the **[sklearn.ensemble](http://scikit-learn.org/stable/modules/classes.html" \l "module-sklearn.ensemble" \o "sklearn.ensemble)** module) can be used to compute feature importances, which in turn can be used to discard irrelevant features (when coupled with the **[sklearn.feature\_selection.SelectFromModel](http://scikit-learn.org/stable/modules/generated/sklearn.feature_selection.SelectFromModel.html" \l "sklearn.feature_selection.SelectFromModel" \o "sklearn.feature_selection.SelectFromModel)** meta-transformer):