



Rensselaer

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Lab 4 : Principal Component Analysis

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Tetherless World Constellation
Rensselaer Polytechnic Institute



Lab 4



Files: <https://rpi.box.com/s/bdmvp8sqk31vtmsxghyhwtf94f0l4tj>

Principal Component Analysis

Using the wine dataset:

- Compute the PCs and plot the dataset using the 1st and 2nd PCs.
- Identify the variables that contribute the most to the 1st PC.
- Train a classifier model (e.g. kNN) to predict the wine type using a subset (3-4) of the variables in the original dataset.
- Train a classifier model to predict the wine type using the first 2 columns of the transformed dataset (PCs 1 & 2) - *scores* in the `princomp()` function's return object
- Compare the 2 classification models using contingency tables and precision/recall/F1 metrics.

Please push to your github repository or upload to lms:

1. All your code in a *.R or *.MD file

Thanks!
Have a great weekend!