



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/od4s6t3f8qy1dq1x6wt2uhmso4ja6lr1>



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 data projected onto the first 2 PCs (*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 Ims:

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



Thanks!
Have a great weekend!