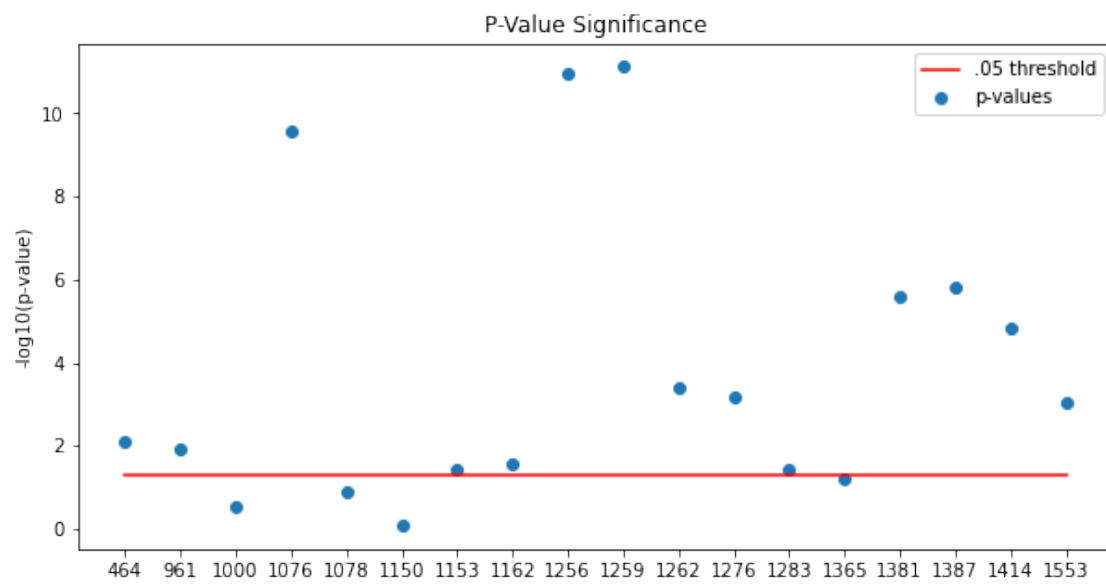


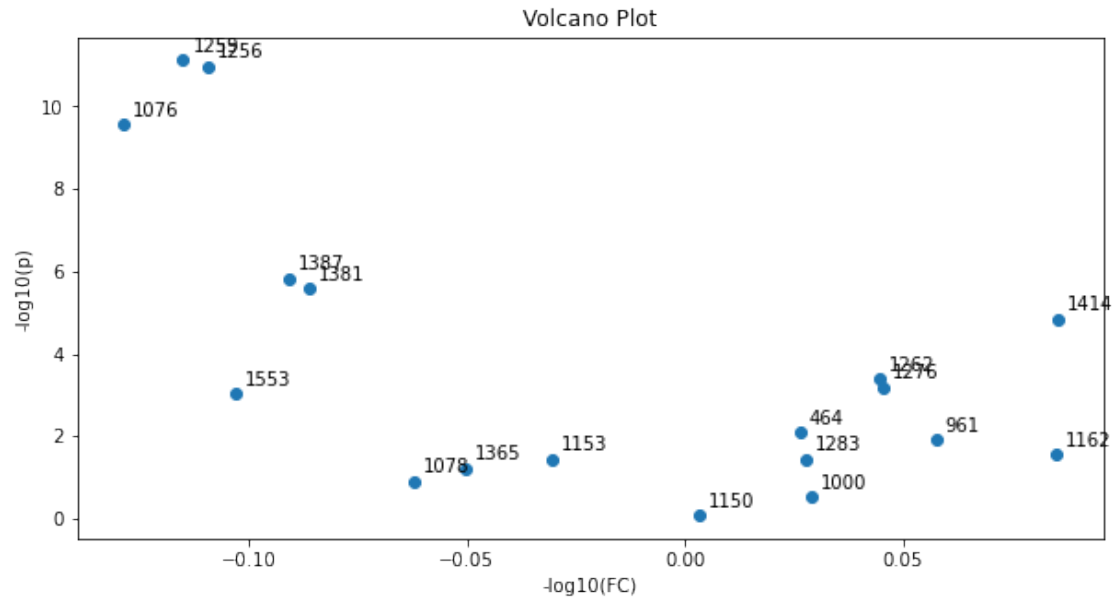
report_executed

July 13, 2021

1 Statistics

T-test





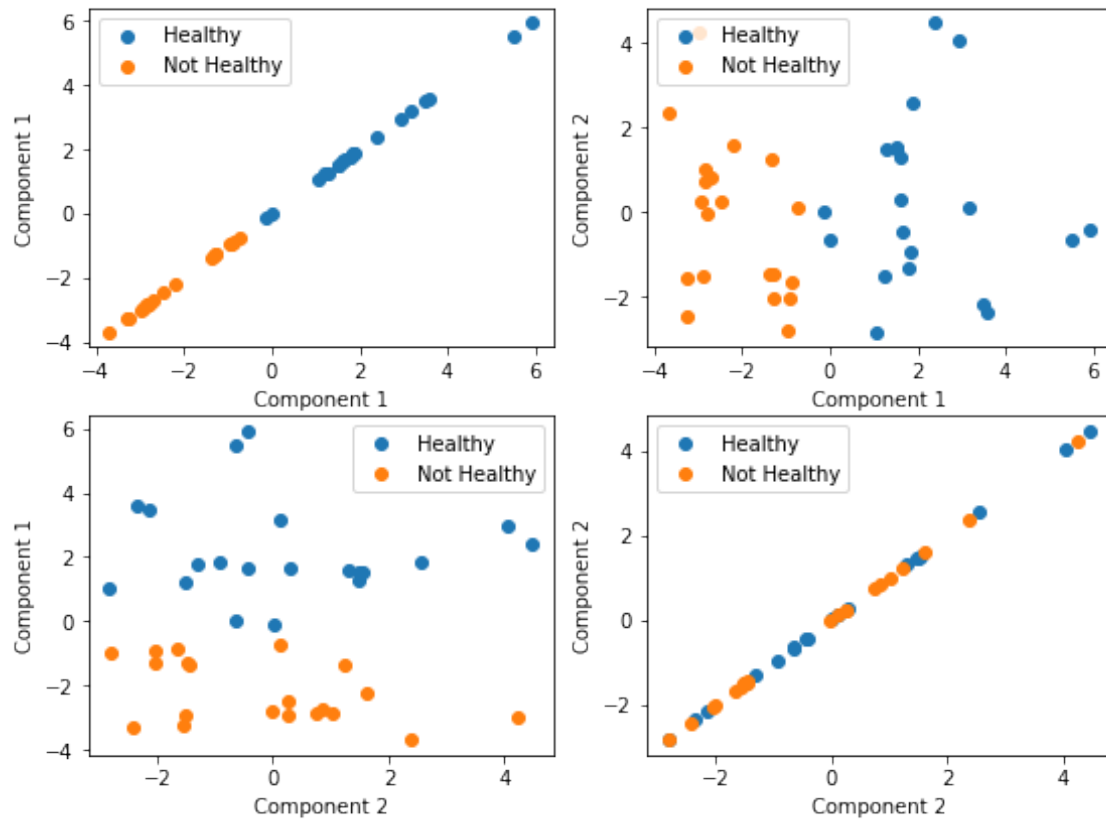
2 Dimension-Reduction

PCA, LDA

PCA Projections

Projections of data into latent space.

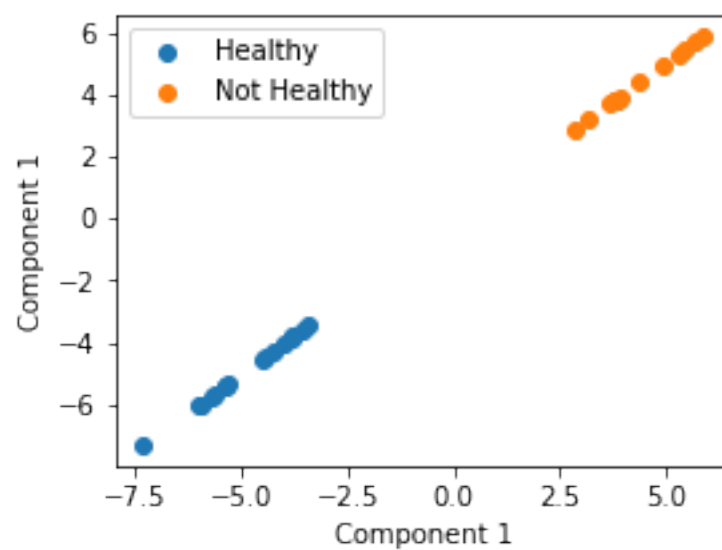
Data is colored by response



LDA Projections

Projections of data into latent space.

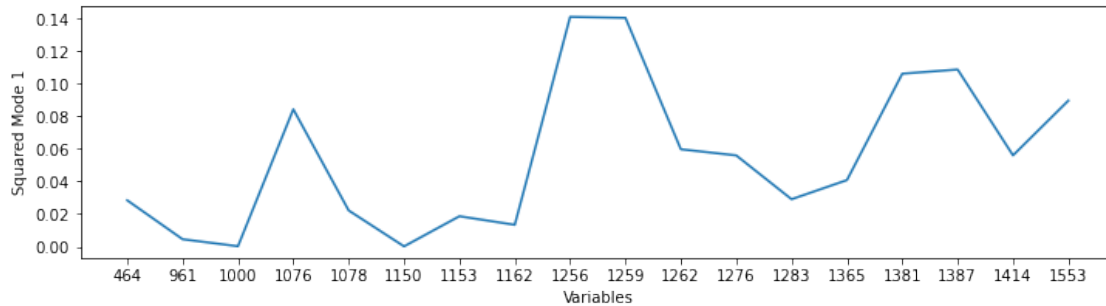
Data is colored by response



PCA Vectors

Plotting the squared loadings of the latent space transformation vectors

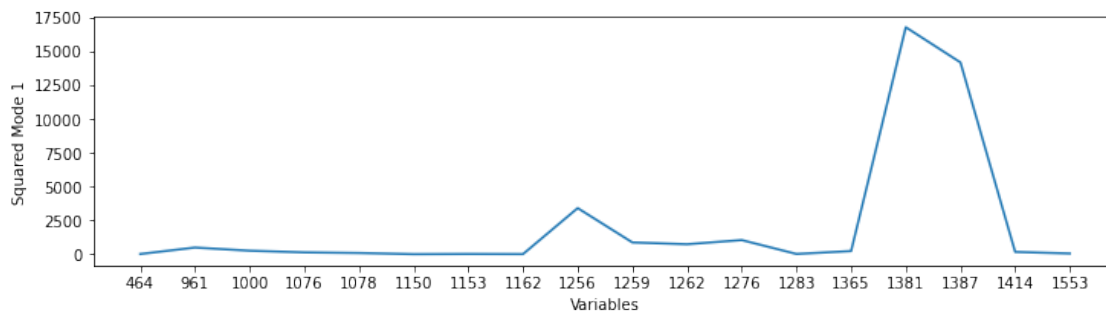
A Larger magnitude indicates larger importance for corresponding feature



LDA Vectors

Plotting the squared loadings of the latent space transformation vectors

A Larger magnitude indicates larger importance for corresponding feature

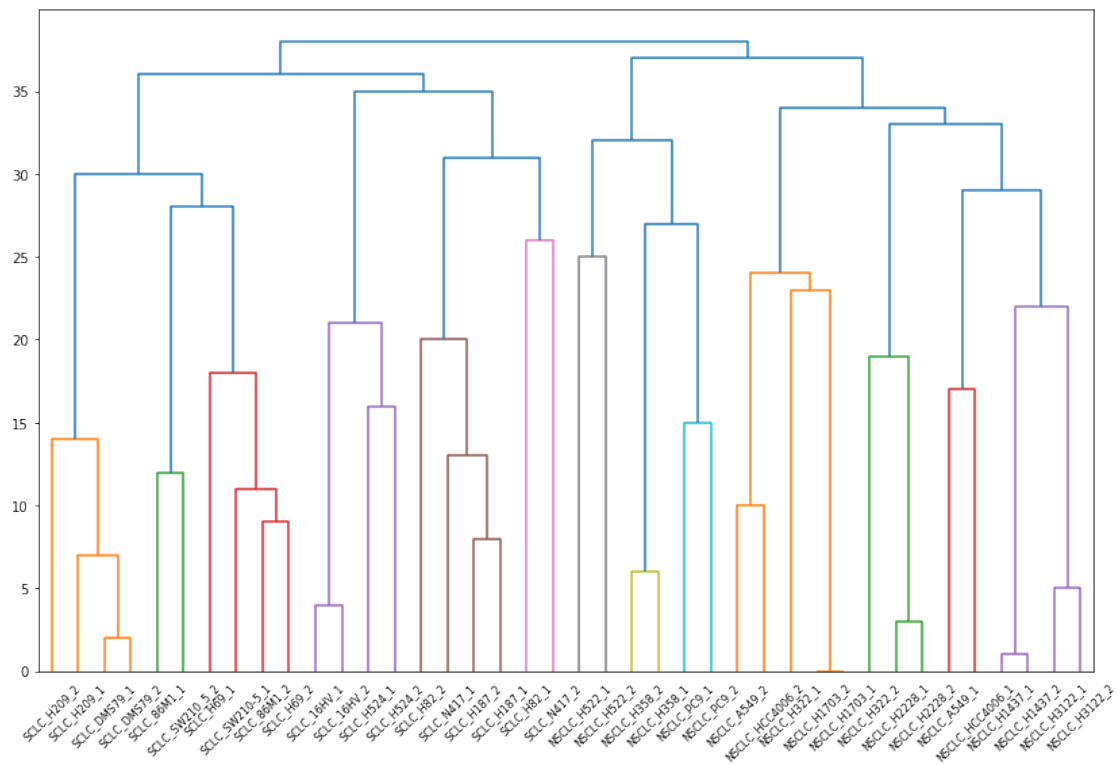


3 Clustering

K-means, hierarchical,

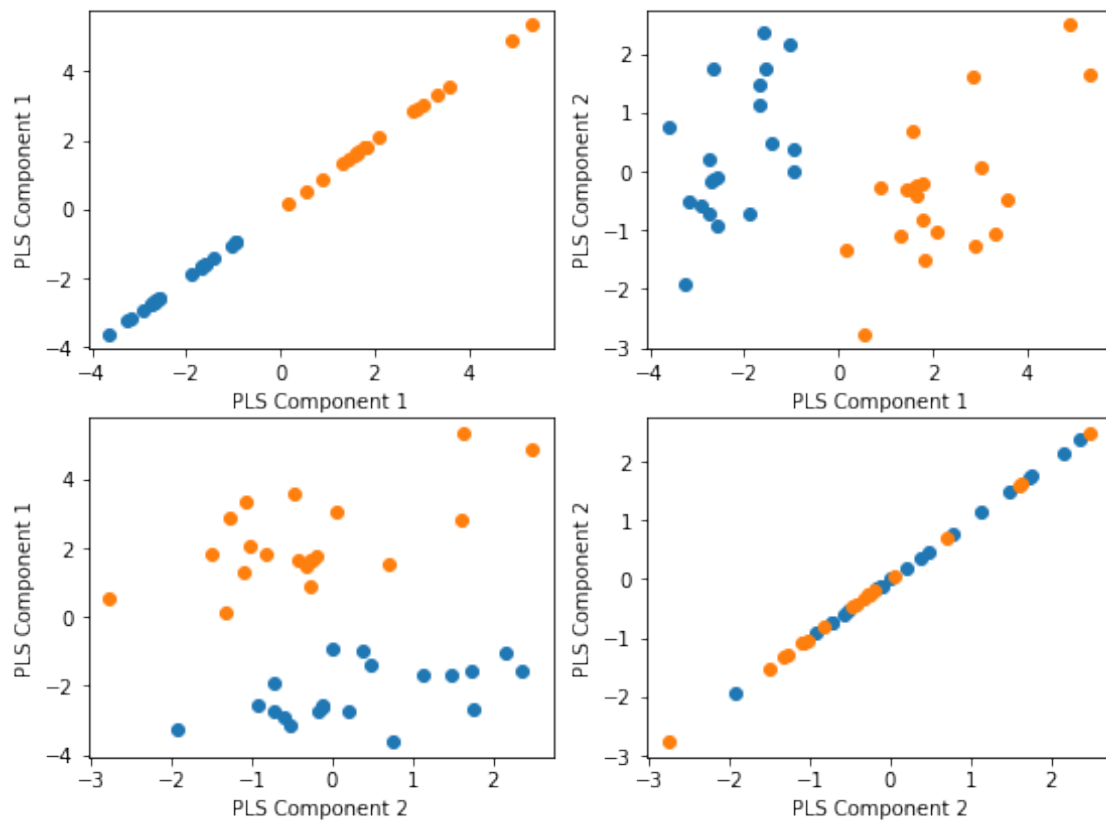
	Cluster 1	Cluster 2	Cluster 3
0	NSCLC_H522_1	NSCLC_A549_1	NSCLC_H1437_1
1	NSCLC_H522_2	NSCLC_H1703_2	NSCLC_H2228_1
2	SCLC_86M1_2	NSCLC_H1703_1	NSCLC_H2228_2
3	SCLC_86M1_1	NSCLC_A549_2	NSCLC_H1437_2
4	SCLC_16HV_1	NSCLC_H322_1	NSCLC_H3122_1
5	SCLC_16HV_2	NSCLC_H358_2	NSCLC_H322_2
6	SCLC_DMS79_1	NSCLC_H358_1	NSCLC_H3122_2
7	SCLC_DMS79_2	NSCLC_PC9_1	NSCLC_HCC4006_1
8	SCLC_H187_2	NSCLC_PC9_2	NaN

9	SCLC_H187_1	NSCLC_HCC4006_2	NaN
10	SCLC_H209_1	NaN	NaN
11	SCLC_H524_1	NaN	NaN
12	SCLC_H209_2	NaN	NaN
13	SCLC_H524_2	NaN	NaN
14	SCLC_H69_1	NaN	NaN
15	SCLC_H82_1	NaN	NaN
16	SCLC_H82_2	NaN	NaN
17	SCLC_H69_2	NaN	NaN
18	SCLC_N417_2	NaN	NaN
19	SCLC_N417_1	NaN	NaN
20	SCLC_SW210-5_1	NaN	NaN
21	SCLC_SW210_5_2	NaN	NaN
	Cluster 1	Cluster 2	Cluster 3
0	SCLC_86M1_2	NSCLC_A549_1	NSCLC_H358_2
1	SCLC_86M1_1	NSCLC_H1703_2	NSCLC_H522_1
2	SCLC_16HV_1	NSCLC_H1703_1	NSCLC_H522_2
3	SCLC_16HV_2	NSCLC_A549_2	NSCLC_H358_1
4	SCLC_DMS79_1	NSCLC_H1437_1	NSCLC_PC9_1
5	SCLC_DMS79_2	NSCLC_H2228_1	NSCLC_PC9_2
6	SCLC_H187_2	NSCLC_H2228_2	NaN
7	SCLC_H187_1	NSCLC_H1437_2	NaN
8	SCLC_H209_1	NSCLC_H3122_1	NaN
9	SCLC_H524_1	NSCLC_H322_2	NaN
10	SCLC_H209_2	NSCLC_H322_1	NaN
11	SCLC_H524_2	NSCLC_H3122_2	NaN
12	SCLC_H69_1	NSCLC_HCC4006_1	NaN
13	SCLC_H82_1	NSCLC_HCC4006_2	NaN
14	SCLC_H82_2	NaN	NaN
15	SCLC_H69_2	NaN	NaN
16	SCLC_N417_2	NaN	NaN
17	SCLC_N417_1	NaN	NaN
18	SCLC_SW210-5_1	NaN	NaN
19	SCLC_SW210_5_2	NaN	NaN

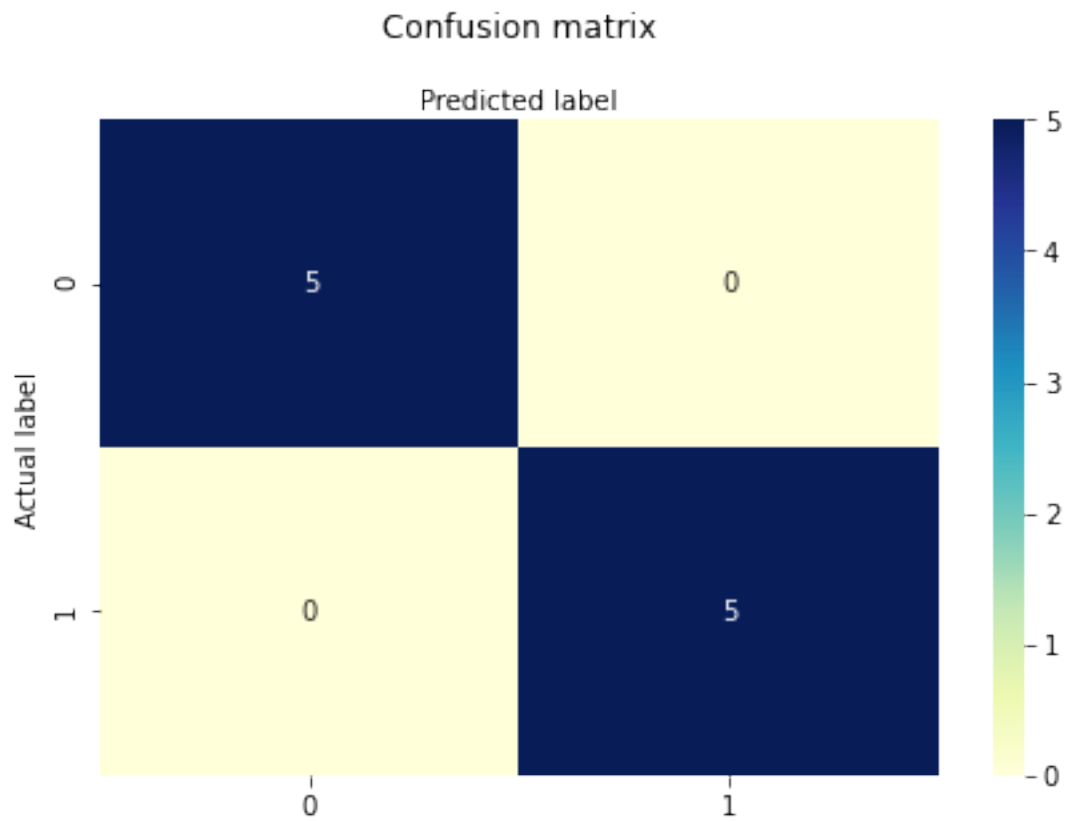


4 Classification

PLS-DA, SVM, random forests, logistic regression



```
SVM Validated Parameters: {'kernel': 'linear', 'shrinking': True}
Random Forest Validated Parameters: {'criterion': 'gini', 'n_estimators': 10}
SVM: R^2=1.0 Q^2=1.0
RF: R^2=1.0 Q^2=1.0
Accuracy: 1.0
<modules.adapml_classification.Classification object at 0x7f97893fb4c0>
```



5 Regression

Linear regression

