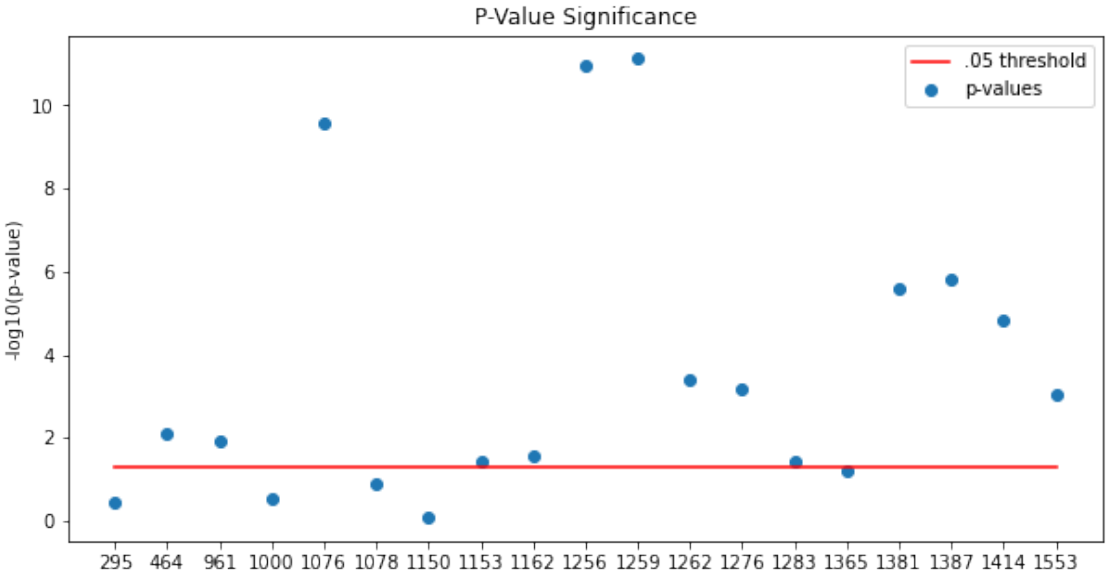
report_executed

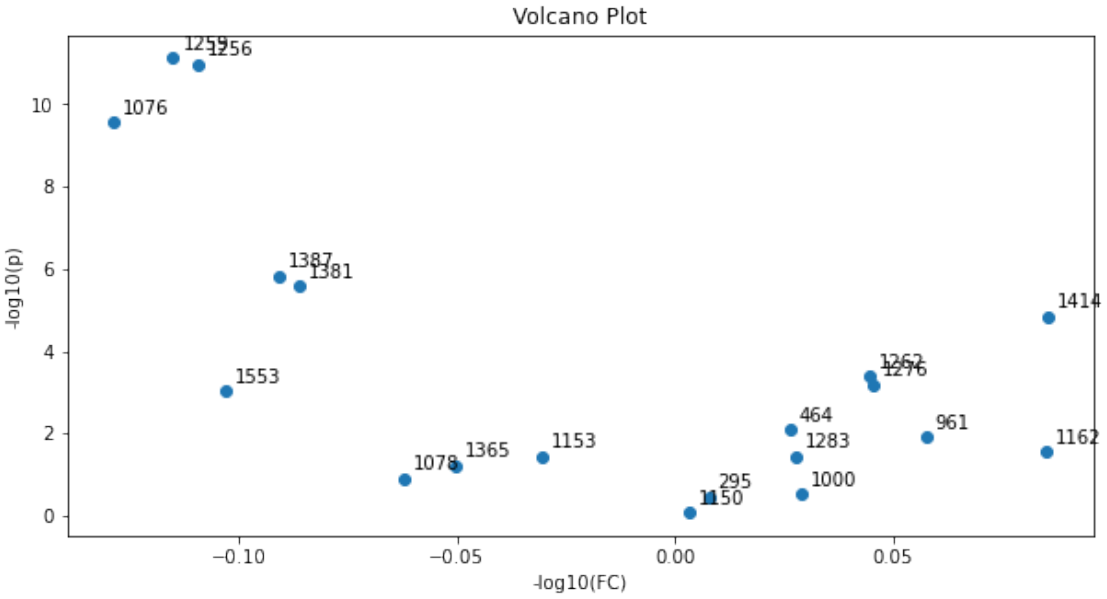
June 28, 2021

1 ADAP-ML Report

T-test and volcano plot

[1]:
```
import adapml_data
import adapml_classification
import adapml_chemometrics
import adapml_statistics
import numpy as np
import loadTestData as load_data
import sklearn.preprocessing as pre
from sklearn.cross_decomposition import PLSRegression as PLS
from matplotlib import pyplot as plt
import os


reldir = os.getcwd()
path_to_data = os.path.join(reldir, 'data', 'SCLC_study_output_filtered_2.csv')
path_to_resp = os.path.join(reldir, 'data', 'SCLC_study_responses_2.csv')

data = adapml_data.DataImport(path_to_data)
response1D = adapml_data.DataImport.getResponse(path_to_resp)
response2D = adapml_data.DataImport.getDummyResponse(response1D)

variables = data.getVariableNames()
samples = data.getSampleNames()

t_test = adapml_statistics.Statistics(data.data, 'anova', response1D)
t_test.plot_logp_values(variables)
t_test.plot_volcano_t(variables)
```


P-Value Significance
.05 threshold
p-values
-log10(p-value)
0
2
4
6
8
10
295 464 961 1000 1076 1078 1150 1153 1162 1256 1259 1262 1276 1283 1365 1381 1387 1414 1553


Volcano Plot
-log10(p)
-log10(FC)
1259
1256
1076
1387
1381
1414
1553
1262
1276
464
961
1283
1162
1153
1365
1078
1000
295
1150
0
2
4
6
8
10
−0.10
−0.05
0.00
0.05