Hypothesis Testing – Python Guide

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(Ref: https://www.statsmodels.org/stable/stats.html)

1. Z Test

*statsmodels.stats.weightstats.ztest(x1, x2=None)*

Alternatively:

*z\_score=(sample\_mean-mu)/(population\_sigma/sqrt(n))  
p\_value = scipy.stats.norm.sf(abs(z\_score))   
print('P-value= {}'.format(p\_value))  
  
if p\_value<0.05:   
print('P-value<alpha: reject H0')   
else:   
print('P-value>alpha: do not reject H0')*

1. T Test

from scipy.stats import ttest\_ind  
data1, data2 = ...  
stat, p = ttest\_ind(data1, data2)

1. ANOVA

from scipy.stats import f\_oneway  
data1, data2, ... = ...  
stat, p = f\_oneway(data1, data2, ...)