Working with Descriptive Statistics Using SciPy and Statsmodels

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Overview

Installing SciPy and StatsModels libraries

Computing mean, median, and mode

Influence of outliers on mean and median

Expressing data in terms of z-scores

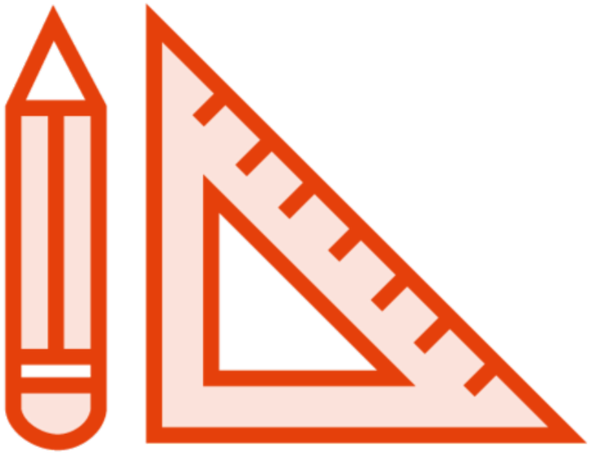
Calculating skewness and kurtosis on stock prices

Calculating confidence intervals for population mean

SciPy

Popular Python library for scientific computing, built on NumPy and in existence since 2001.

SciPy



Optimization

Signal processing

Numerical integration

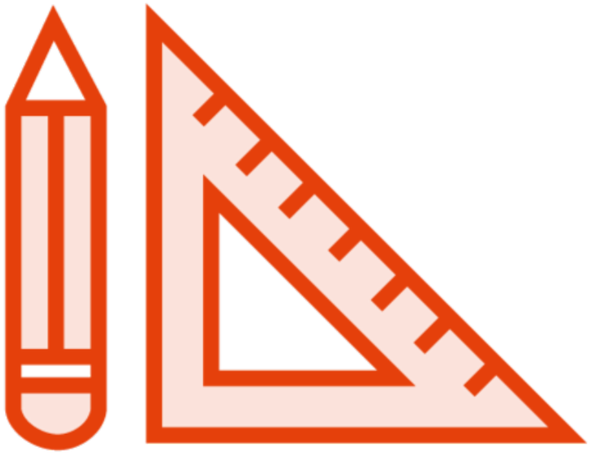
Differential equation solvers

Fast Fourier Transforms

StatsModels

Specialized Python library for statistical processing, much more recent than SciPy (current version 0.10.1)

StatsModels



- Hypothesis testing
- ANOVA
- Statistical tests
- Encoding categorical data
- Time series analysis

Demo

Calculating and interpreting mean, median, and mode

Demo

Calculating and interpreting interquartile range, variance, and standard deviation

Demo

Expressing data using z-scores

Demo

Calculating skewness and kurtosis for stock price returns

Demo

Understanding and calculating descriptive statistics for bivariate and multivariate data

Demo

Understanding and calculating confidence intervals for a measure using SciPy

Summary

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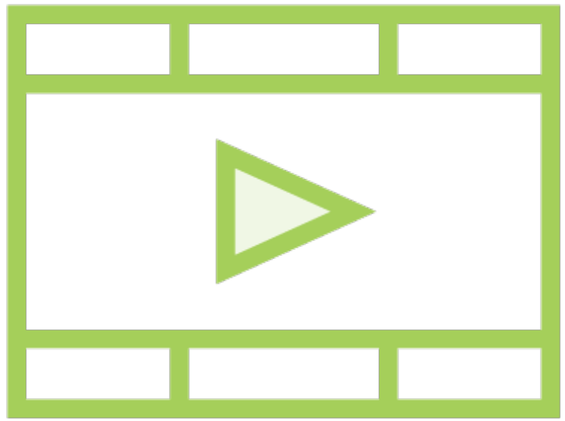
Related Courses



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