Visualizing Statistical Data with Matplotlib

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Overview

Understanding the nuances of the boxplot and the violinplot

Plot and customize histograms and pie charts

Visualize autocorrelations and changes from a baseline using stemplots

Customize and use stackplots

Demo

Box plots

Violin plots

Demo

Histograms

Demo

Pie charts

Autocorrelation

Correlation

The measure of the relationship between two items or variables

self

Autocorrelation

Autocorrelation

Measures the relationship between a variable’s current value and past value

Autocorrelation

Measures the relationship between a variable's current value and past value

Autocorrelation

Measures the relationship between a variable's current value and past value

Autocorrelation

More likely

Today

Tomorrow

Autocorrelation

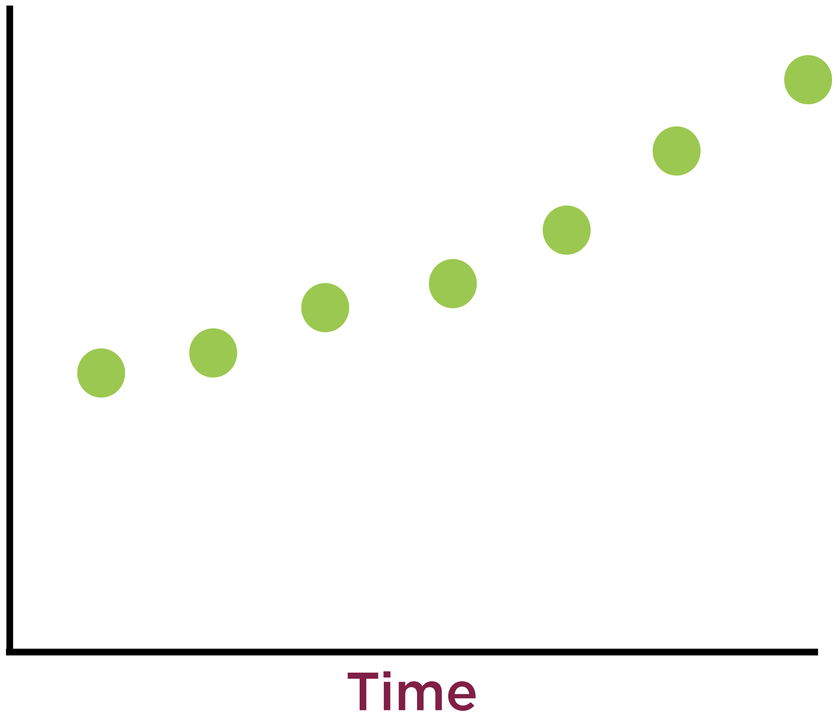
Less likely

Today

Tomorrow

Autocorrelation

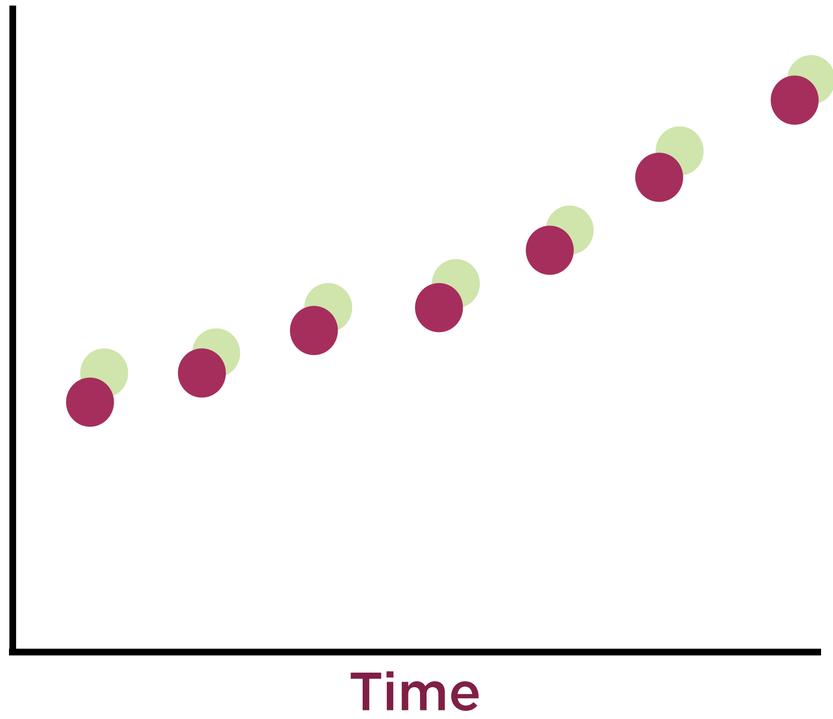
Same time series is used twice



Original form

Autocorrelation

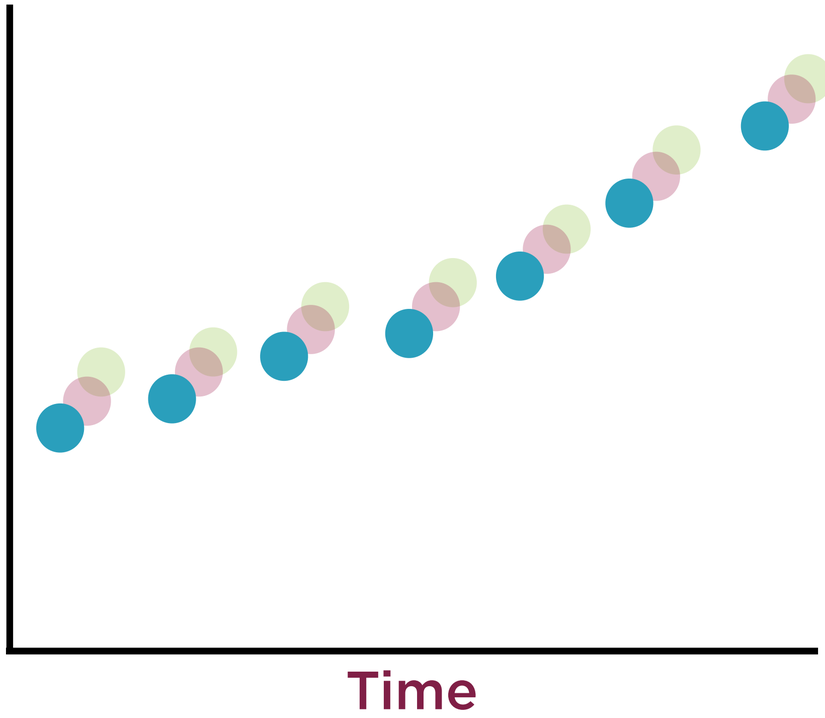
Same time series is used twice



Lagged over one or more time periods

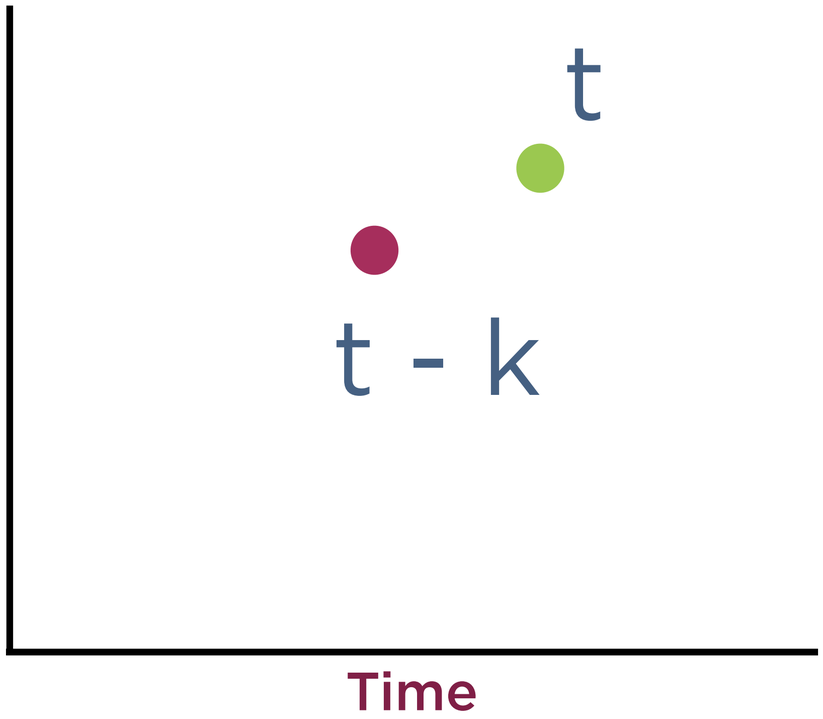
Autocorrelation

Same time series is used twice



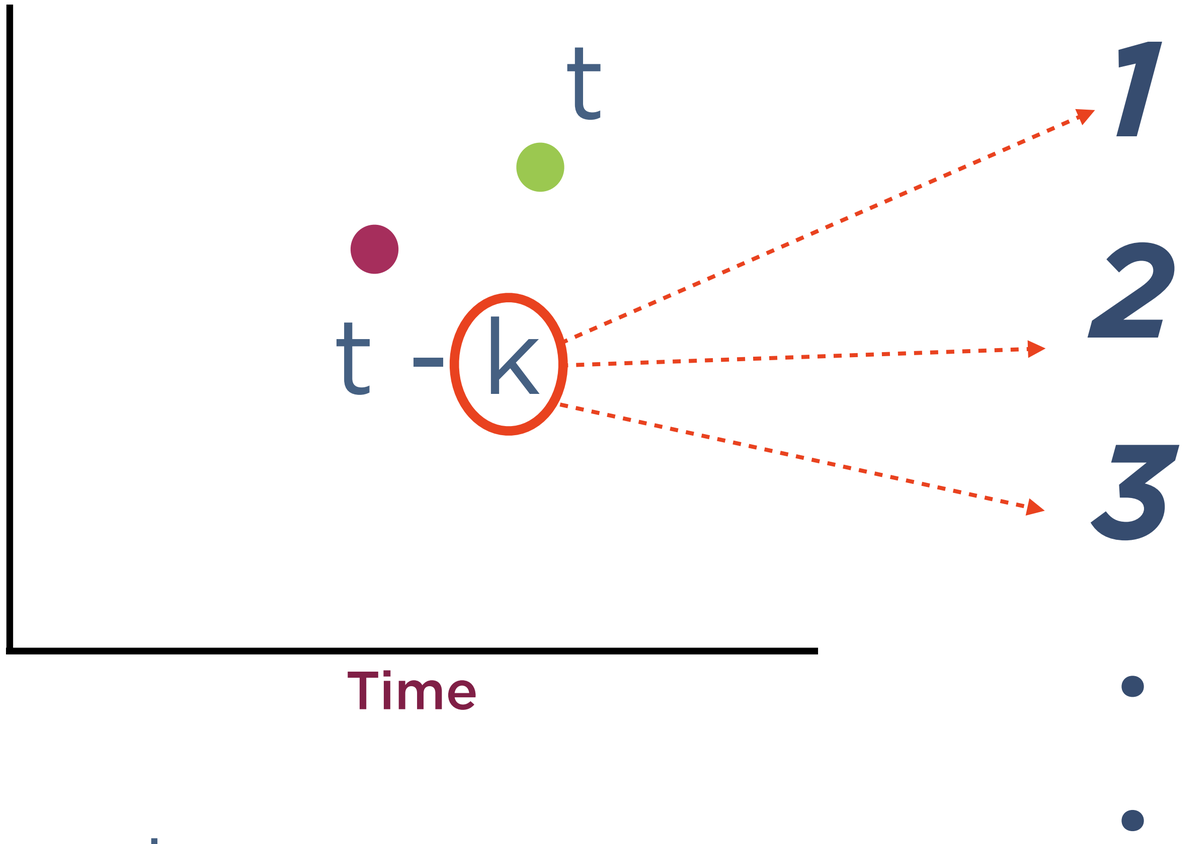
Lagged over one or more time periods

Autocorrelation



Lagged over one or more time periods

Autocorrelation



Lagged over one or more time periods

Autocorrelation

Ranges between

Autocorrelation

Perfect positive correlation

1

Autocorrelation

-1

Perfect negative correlation

Demo

Autocorrelation

Demo

Stacked plots

Demo

Color maps

Summary

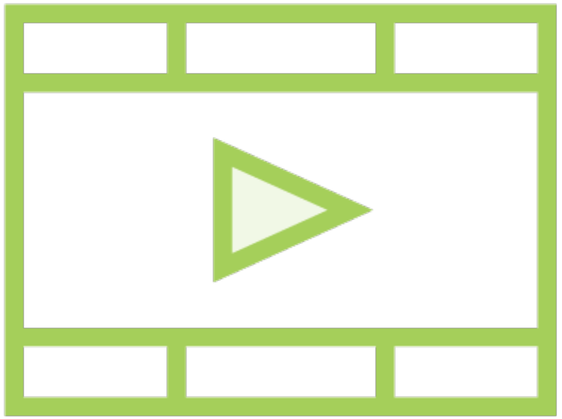
Understanding the nuances of the boxplot and the violinplot

Plot and customize histograms and pie charts

Visualize autocorrelations and changes from a baseline using stemplots

Customize and use stackplots

Prerequisite Courses



Visualizing Statistical Data Using Seaborn

Building Machine Learning Models in Python with scikit-learn

Working with Multidimensional Data Using NumPy