

# Package: Statsomat (via r-universe)

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**Type** Package

**Title** Shiny Apps for Automated Data Analysis and Automated Interpretation

**Version** 1.1.0

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**Imports** shiny, rmarkdown, data.table, readr, shinydisconnect, knitr, kableExtra, car, DDoutlier, energy, corrplot, ggplot2, gridExtra, reshape2

**Suggests** MASS, boot, nortest, lmtest, DescTools, psych, Hmisc, PerformanceAnalytics, reticulate, fastDummies, semTools, semPlot, FactoMineR, FactoInvestigate, factoextra, rrcov, methods, parallel, graphics, imputeMissings, onewaytests

**SystemRequirements** For all functions resp. apps: pandoc, LaTeX. For the edapy() function resp. Statsomat/EDAPY app: Python (>=3).

**Description** Shiny apps for automated data analysis, annotated outputs and human-readable interpretation in natural language. Designed especially for learners and applied researchers. Currently available methods: EDA, EDA with Python, Correlation Analysis, Principal Components Analysis, Confirmatory Factor Analysis.

**License** AGPL

**URL** <https://statsomat.com>

**Encoding** UTF-8

**RoxygenNote** 7.1.1

**NeedsCompilation** no

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**Repository** <https://reyar.r-universe.dev>

**RemoteUrl** <https://github.com/cran/Statsomat>

**RemoteRef** HEAD

**RemoteSha** 6493f33cff0d569733567fc20734c13402f4b8e2

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cfa	<i>Confirmatory Factor Analysis</i>
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## Description

A Shiny app for automated Confirmatory Factor Analysis (CFA) based on the R package [lavaan](#). Single-group, first-order CFA for datasets up to 5000 observations, 25 (approximately) continuous variables and 5000 KB. An interpretation in natural language and the R Code to reproduce the results is included in the report. Run the app locally by calling the function or launch it directly in the web from <https://statsomat.shinyapps.io/Confirmatory-Factor-Analysis>. Follow the Instructions described in the GUI to use the app and generate a report. Check also the GitHub repository <https://github.com/Statsomat/CFA>.

## Usage

```
cfa()
```

## Value

Shiny app opens in viewer or browser.

## Examples

```
## Not run:
library(Statsomat)
cfa()

## End(Not run)
```

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corrana

*Correlation Analysis*

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### Description

A Shiny app for automated Correlation Analysis for (approximately) continuous variables. An interpretation in plain English and the R Code to reproduce the results is included in the report. Run the app locally by calling the function or launch it directly in the web from <https://statsomat.shinyapps.io/Correlations>. Follow the Instructions described in the GUI to use the app and generate a report. Check also the GitHub repository <https://github.com/Statsomat/CORRANA>.

### Usage

```
corrana()
```

### Value

Shiny app opens in viewer or browser.

### Examples

```
## Not run:  
library(Statsomat)  
corrana()  
  
## End(Not run)
```

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edapy

*Exploratory Data Analysis with Python*

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### Description

A Shiny app for automated Exploratory Data Analysis with Python, based on the R interface to Python [reticulate](#). Run the app locally by calling the function or launch it directly in the web from <https://statsomat.shinyapps.io/edapy>. Follow the Instructions in the GUI of the app to generate a PDF report or Python code to reproduce numerical and graphical results. Check also the GitHub repository of the app for more details <https://github.com/Statsomat/edapy>. System Requirements: Python >=3. Imports numpy, pandas, seaborn, matplotlib, scipy, statsmodels, tabulate, sys, warnings.

### Usage

```
edapy()
```

### Value

Shiny app opens in viewer or browser.

### Examples

```
## Not run:  
library(Statsomat)  
edapy()  
  
## End(Not run)
```

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edar

*Exploratory Data Analysis with R*

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### Description

A Shiny app for automated Exploratory Data Analysis with R. Run the app locally by calling the function or launch it directly in the web from [https://statsomat.shinyapps.io/Descriptive\\_statistics/](https://statsomat.shinyapps.io/Descriptive_statistics/). Follow the Instructions described in the GUI to use the app and generate a report. Check also the GitHub repository <https://github.com/Statsomat/edar>.

### Usage

```
edar()
```

### Value

Shiny app opens in viewer or browser.

### Examples

```
## Not run:  
library(Statsomat)  
edar()  
  
## End(Not run)
```

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pca

*Principal Components Analysis*

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### Description

A Shiny app for automated Principal Components Analysis (PCA) based on the R package [factominer](#). An interpretation in plain English and the R Code to reproduce the results is included in the report. Follow the Instructions on the webpage of the app <https://statsomat.shinyapps.io/Principal-components-analysis/> to generate the report. Check also the GitHub repository <https://github.com/Statsomat/PCA>.

### Usage

```
pca()
```

**Value**

Shiny app opens in viewer or browser.

**Examples**

```
## Not run:  
library(Statsomat)  
pca()  
  
## End(Not run)
```

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