

Package ‘shinyML’

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Type Package

Title Compare H2O or Spark Supervised Regression Models Using Shiny App

Version 0.1.1

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Description

Implementation of a shiny app to easily compare supervised regression model performances. You provide the data and configure each model parameter directly on the shiny app. Four main supervised learning algorithms can be tested either on Spark or H2O frameworks to suit your regression problem on a given time series. Implementation of these time series forecasting methods on R has been done by Shmueli and Lichtendahl (2015, ISBN:0991576632).

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Encoding UTF-8

Imports shiny(>= 1.0.3), shinydashboard, h2o, shinyWidgets, dygraphs, plotly, sparklyr, tidyr, DT, ggplot2, shinycssloaders

Suggests knitr, rmarkdown, covr, testthat

Depends dplyr, data.table

LazyData True

RoxygenNote 6.1.1

VignetteBuilder knitr

NeedsCompilation no

Repository CRAN

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shiny_h2o	<i>Implement a shiny web app to compare h2o supervised regression models on time series</i>
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Description

This function creates in one line of code a shareable web app to compare supervised regression model performance (framework: H2O).

Usage

```
shiny_h2o(data = data, x, y, date_column, share_app = FALSE,
          port = NULL)
```

Arguments

data	Time serie containing one or more input values and one output value. The time serie must be a data.frame or a data.table and must contain at least one time-based column on Date or POSIXct format.
x	Vector of numerical and categorical input variables used to train and test the model. Each element of x vector must correspond to a data column with either numerical or factor type.
y	the numerical output variable to forecast (must correpond to one data column)
date_column	the name of time-based column (must correpond to one data column). Must correpond to Date or POSIXct format.
share_app	a logical value indicating whether the app must be shared on local LAN
port	a four-digit number corresponding to the port the application should listen to. This parameter is necessary only if share_app option is set to TRUE

Examples

```
## Not run:
library(shinyML)
longley2 <- longley %>% mutate(Year = as.Date(as.character(Year), format = "%Y"))
shiny_h2o(data =longley2,x = c("GNP_deflator", "Unemployed" , "Armed_Forces", "Employed"),
          y = "GNP",date_column = "Year",share_app = FALSE)

## End(Not run)
```

shiny_spark	<i>Implement a shiny web app to compare spark supervised regression models on time series</i>
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Description

This function creates in one line of code a shareable web app to compare supervised regression model performances (framework: Spark).

Usage

```
shiny_spark(data = data, x, y, date_column, share_app = FALSE,  
            port = NULL)
```

Arguments

data	Time serie containing one or more input values and one output value. The time serie must be a data.frame or a data.table and must contain at least one time-based column on Date or Posixct format.
x	Vector of numerical and categorical input variables used to train and test the model. Each element of x vector must correspond to a data column with either numerical or factor type.
y	the numerical output variable to forecast (must correpond to one data column)
date_column	the name of time-based column (must correspond to one data column). Must correspond to Date or POSIXct format.
share_app	a logical value indicating whether the app must be shared on local LAN
port	a four-digit number corresponding to the port the application should listen to. This parameter is necessary only if share_app option is set to TRUE

Examples

```
## Not run:  
library(shinyML)  
longley2 <- longley %>% mutate(Year = as.Date(as.character(Year), format = "%Y"))  
shiny_spark(data = longley2, x = c("GNP_deflator", "Unemployed", "Armed_Forces", "Employed"),  
            y = "GNP", date_column = "Year", share_app = FALSE)  
  
## End(Not run)
```

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