Package 'AutoPlots'

January 23, 2024

Title Creating Echarts Visualizations as Easy as Possible

Version 1.0.0 **Date** 2024-01-19

Author Adrian Antico [aut, cre, cph]

Maintainer Adrian Antico <adrianantico@gmail.com>

Description Create beautiful and interactive visualizations in a single function call. The 'data.table' package is utilized to perform the data wrangling necessary to prepare your data for the plot types you wish to build, along with allowing fast processing for big data. There are two broad classes of plots available: standard plots and machine learning evaluation plots. There are lots of parameters available in each plot type function for customizing the plots (such as faceting) and data wrangling (such as variable transformations and aggregation).

License AGPL (>= 3)

URL https://github.com/AdrianAntico/AutoPlots

BugReports https://github.com/AdrianAntico/AutoPlots/issues

Depends R (>= 4.1.0)

Imports combinat, data.table, dplyr, e1071, echarts4r, lubridate, nortest, quanteda, quanteda.textstats, scales, stats, utils

Contact Adrian Antico

Encoding UTF-8

Language en-US

NeedsCompilation no

RoxygenNote 7.2.3

Suggests spelling

Repository CRAN

Date/Publication 2024-01-23 13:13:00 UTC

111

Index

R topics documented:

FakeDataGenerator	3
Plot.ACF	4
Plot.Area	6
Plot.Bar	9
Plot.BarPlot3D	12
Plot.BinaryMetrics	15
Plot.Box	18
Plot.Calibration.Box	21
Plot.Calibration.Line	23
Plot.ConfusionMatrix	25
1	27
	30
Plot.CorrMatrix	33
Plot.Density	36
	39
	42
1	45
Plot.Histogram	48
	51
	53
	56
	58
· · · · · · · · · · · · · · · · · · ·	61
1	63
1	65
	67
	70
	72
ϵ	75
	77
	79
	82
7 1	84
	87
	90
1 1	93
	95
	98
Plot.Step	
Plot.VariableImportance	
Plot.WordCloud	
Plots.ModelEvaluation	08

FakeDataGenerator 3

FakeDataGenerator

FakeDataGenerator

Description

Create fake data for examples

Usage

```
FakeDataGenerator(
   Correlation = 0.7,
   N = 1000L,
   ID = 5L,
   FactorCount = 2L,
   AddDate = TRUE,
   AddComment = FALSE,
   AddWeightsColumn = FALSE,
   ZIP = 5L,
   ChainLadderData = FALSE,
   Classification = FALSE,
   MultiClass = FALSE
)
```

Arguments

Correlation Set the correlation value for simulated data

N Number of records

ID Number of IDcols to include

FactorCount Number of factor type columns to create
AddDate Set to TRUE to include a date column
AddComment Set to TRUE to add a comment column

AddWeightsColumn

Add a weights column for ML

ZIP Zero Inflation Model target variable creation. Select from 0 to 5 to create that

number of distinctly distributed data, stratifed from small to large

ChainLadderData

Set to TRUE to return Chain Ladder Data for using AutoMLChainLadderTrainer

Classification Set to TRUE to build classification data
MultiClass Set to TRUE to build MultiClass data

Value

data.table of data

Author(s)

Adrian Antico

4 Plot.ACF

Plot.ACF

Plot.ACF

Description

Build an autocorrelation plot by simply passing arguments to a single function

Usage

```
Plot.ACF(
  dt = NULL,
  YVar = NULL,
 DateVar = NULL,
 TimeUnit = NULL,
 MaxLags = 50,
  YVarTrans = "Identity",
 AggMethod = "sum",
 Height = NULL,
 Width = NULL,
 Title = "Autocorrelation Plot",
 EchartsTheme = "macarons",
 TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  xaxis.fontSize = 14,
 yaxis.fontSize = 14,
 xaxis.rotate = 0,
  yaxis.rotate = 0,
 ContainLabel = TRUE,
 Debug = FALSE
)
```

Arguments

dt	source data.table
YVar	Y-Axis variable name
DateVar	Date column in data
TimeUnit	Select from "hour", "day", "week", "month", "quarter", "year"
MaxLags	Max lag values to test
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"

Plot.ACF 5

Choose from 'mean', 'sum', 'sd', and 'median'

AggMethod

Plot.Step(), Plot.WordCloud()

```
"400px"
    Height
                      "200px"
    Width
    Title
                      title
                      "auritus", "azul", "bee-inspired", "blue", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo",
    EchartsTheme
                      #' "essos", "forest", "fresh-cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired",
                     #' "jazz","london","dark","macarons","macarons2","mint","purple-passion","red-
                      velvet", "red", "roma", "royal", #' "sakura", "shine", "tech-blue", "vintage", "walden", "wef", "weforum", "west
    TextColor
                      'darkblue'
    title.fontSize 22
    title.fontWeight
                      "bold"
    title.textShadowColor
                      '#63aeff'
    title.textShadowBlur
    title.textShadowOffsetY
    title.textShadowOffsetX
                     -1
    xaxis.fontSize 14
    yaxis.fontSize 14
    xaxis.rotate
    yaxis.rotate
                      0
    ContainLabel
                     TRUE
    Debug
                      Debugging purposes
Value
    plot
Author(s)
    Adrian Antico
See Also
    Other Standard Plots: Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Box(), Plot.Copula3D(),
    Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.Donut(), Plot.HeatMap(), Plot.Histogram(),
    Plot.Line(), Plot.PACF(), Plot.Parallel(), Plot.Pie(), Plot.ProbabilityPlot(), Plot.Radar(),
    Plot.River(), Plot.Rosetype(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(),
```

6 Plot.Area

Plot.Area

Plot.Area

Description

This function automatically builds calibration plots and calibration boxplots for model evaluation using regression, quantile regression, and binary and multinomial classification

Usage

```
Plot.Area(
  dt = NULL,
  AggMethod = "mean",
  PreAgg = TRUE,
  XVar = NULL,
  YVar = NULL,
 DualYVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  DualYVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
 Height = NULL,
 Width = NULL,
  Title = "Line Plot",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
 EchartsTheme = "macarons",
 MouseScroll = TRUE,
  TimeLine = TRUE,
  Alpha = 0.5,
  Smooth = TRUE,
  ShowSymbol = FALSE,
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  xaxis.fontSize = 14,
  yaxis.fontSize = 14,
  xaxis.rotate = 0,
  yaxis.rotate = 0,
```

Plot.Area 7

```
ContainLabel = TRUE,
Debug = FALSE
)
```

Arguments

dt source data.table

AggMethod character PreAgg logical

XVar X-Axis variable name

YVar Y-Axis variable name. You can supply multiple YVars

DualYVar Secondary Y-Axis variables. Leave NULL for no secondary axis. Only one

variable is allowed and when this is set only one YVar is allowed. An error will

be thrown if those conditions are not met

GroupVar One Grouping Variable

YVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

DualYVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

FacetRows Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a

numeric value for the number of output grid rows

FacetCols Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply

a numeric value for the number of output grid columns

FacetLevels Faceting rows x columns is the max number of levels allowed in a grid. If your

GroupVar has more you can supply the levels to display.

Height "400px"
Width "200px"
Title "Title"
ShowLabels character
Title.YAxis character
Title.XAxis character

EchartsTheme Provide an "Echarts" theme

MouseScroll logical, zoom via mouse scroll

TimeLine Logical

Alpha 0 to 1 for setting transparency

Smooth = TRUEShowSymbol = FALSE

TextColor "Not Implemented"

title.fontSize 22

8 Plot.Area

```
title.fontWeight
                "bold"
title.textShadowColor
                '#63aeff'
title.textShadowBlur
title.textShadowOffsetY
title.textShadowOffsetX
               -1
xaxis.fontSize 14
yaxis.fontSize 14
xaxis.rotate
               0
               0
yaxis.rotate
ContainLabel
               TRUE
Debug
               Debugging purposes
               logical
Area
```

Value

plot

Author(s)

Adrian Antico

See Also

```
Other Standard Plots: Plot.ACF(), Plot.BarPlot3D(), Plot.Bar(), Plot.Box(), Plot.Copula3D(), Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.Donut(), Plot.HeatMap(), Plot.Histogram(), Plot.Line(), Plot.PACF(), Plot.Parallel(), Plot.Pie(), Plot.ProbabilityPlot(), Plot.Radar(), Plot.River(), Plot.Rosetype(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step(), Plot.WordCloud()
```

Examples

```
# Create fake data
data <- AutoPlots::FakeDataGenerator(N = 1000)

# Build plot
AutoPlots::Plot.Area(
    dt = data,
    PreAgg = FALSE,
    AggMethod = "mean",
    XVar = "DateTime",
    YVar = "Independent_Variable3",
    YVarTrans = "Identity",
    DualYVar = "Independent_Variable6",</pre>
```

Plot.Bar 9

```
DualYVarTrans = "Identity",
GroupVar = NULL,
EchartsTheme = "macarons")
```

Plot.Bar

Plot.Bar

Description

Build a bar plot by simply passing arguments to a single function

Usage

```
Plot.Bar(
  dt = NULL,
  PreAgg = FALSE,
  XVar = NULL,
  YVar = NULL,
  GroupVar = NULL,
  LabelValues = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  AggMethod = "mean",
 Height = NULL,
 Width = NULL,
  Title = "Bar Plot",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
 MouseScroll = TRUE,
  TimeLine = TRUE,
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  xaxis.fontSize = 14,
  yaxis.fontSize = 14,
  xaxis.rotate = 0,
  yaxis.rotate = 0,
```

10 Plot.Bar

```
ContainLabel = TRUE,
Debug = FALSE
)
```

Arguments

dt source data.table

PreAgg logical

XVar X-Axis variable name
YVar Y-Axis variable name

GroupVar Column name of Group Variable for distinct colored histograms by group levels

LabelValues A vector of values. Requires PreAgg to be set to TRUE and you'll need to

ensure LabelValues are ordered the same as dt. If NULL and ShowLabels is

TRUE, then bar values will be displayed

YVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

FacetRows Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a

numeric value for the number of output grid rows

FacetCols Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply

a numeric value for the number of output grid columns

FacetLevels Faceting rows x columns is the max number of levels allowed in a grid. If your

GroupVar has more you can supply the levels to display.

AggMethod Choose from 'mean', 'sum', 'sd', and 'median'

Height "400px"
Width "200px"
Title title
ShowLabels logical

Title.YAxis NULL. If NULL, YVar name will be used
Title.XAxis NULL. If NULL, XVar name will be used

Teleformation in teleformation and the disease

"auritus", "azul", "bee-inspired", "blue", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo", #' "essos", "forest", "fresh-cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired",

#' "jazz", "london", "dark", "macarons", "macarons2", "mint", "purple-passion", "red-

velvet", "red", "royal", #' "sakura", "shine", "tech-blue", "vintage", "walden", "wef", "weforum", "west

MouseScroll logical, zoom via mouse scroll

TimeLine logical
TextColor 'darkblue'

title.fontSize 22 title.fontWeight

EchartsTheme

"bold"

Plot.Bar 11

```
title.textShadowColor
               '#63aeff'
title.textShadowBlur
title.textShadowOffsetY
title.textShadowOffsetX
               -1
xaxis.fontSize 14
yaxis.fontSize 14
               0
xaxis.rotate
               0
yaxis.rotate
ContainLabel
               TRUE
Debug
               Debugging purposes
```

Value

plot

Author(s)

Adrian Antico

See Also

```
Other Standard Plots: Plot.ACF(), Plot.Area(), Plot.BarPlot3D(), Plot.Box(), Plot.Copula3D(), Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.Donut(), Plot.HeatMap(), Plot.Histogram(), Plot.Line(), Plot.PACF(), Plot.Parallel(), Plot.Pie(), Plot.ProbabilityPlot(), Plot.Radar(), Plot.River(), Plot.Rosetype(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step(), Plot.WordCloud()
```

Examples

```
# Create fake data
data <- AutoPlots::FakeDataGenerator(N = 100000)

# Echarts Bar Chart
AutoPlots::Plot.Bar(
    dt = data,
    PreAgg = FALSE,
    XVar = "Factor_1",
    YVar = "Adrian",
    GroupVar = NULL,
    LabelValues = NULL,
    YVarTrans = "Identity",
    XVarTrans = "Identity",
    FacetRows = 1,
    FacetCols = 1,
    FacetLevels = NULL,</pre>
```

12 Plot.BarPlot3D

```
AggMethod = 'mean',
Height = NULL,
Width = NULL,
Title = 'Bar Plot',
ShowLabels = FALSE,
Title.YAxis = "Adrian",
Title.XAxis = NULL,
EchartsTheme = "macarons",
MouseScroll = TRUE,
TimeLine = TRUE,
TextColor = "black",
title.fontSize = 22,
title.fontWeight = "bold",
title.textShadowColor = '#63aeff',
title.textShadowBlur = 3,
title.textShadowOffsetY = 1,
title.textShadowOffsetX = -1,
xaxis.fontSize = 14,
yaxis.fontSize = 14,
xaxis.rotate = 0,
yaxis.rotate = 0,
ContainLabel = TRUE,
Debug = FALSE)
```

Plot.BarPlot3D

Plot.BarPlot3D

Description

Build a 3D Bar Plot

Usage

```
Plot.BarPlot3D(
dt,
PreAgg = FALSE,
AggMethod = "mean",
XVar = NULL,
YVar = NULL,
ZVar = NULL,
YVarTrans = "Identity",
XVarTrans = "Identity",
ZVarTrans = "Identity",
FacetRows = 1,
FacetCols = 1,
FacetLevels = NULL,
NumberBins = 21,
NumLevels_Y = 33,
```

Plot.BarPlot3D

```
NumLevels_X = 33,
 Height = NULL,
 Width = NULL,
 Title = "3D Bar Plot",
 ShowLabels = FALSE,
 Title.YAxis = NULL,
 Title.XAxis = NULL,
 EchartsTheme = "dark",
 MouseScroll = TRUE,
 TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
 yaxis.fontSize = 14,
 xaxis.fontSize = 14,
 zaxis.fontSize = 14,
 xaxis.rotate = 0,
 yaxis.rotate = 0,
 ContainLabel = TRUE,
 Debug = FALSE
)
```

Arguments

dt	source data.table
PreAgg	logical. Is your data pre aggregated
AggMethod	'mean', 'median', 'sum', 'sd', 'coeffvar', 'count'
XVar	X-Axis variable name
YVar	Y-Axis variable name
ZVar	Z-Axis variable name
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
ZVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows
FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.

14 Plot.BarPlot3D

```
NumberBins
                = 21
NumLevels_Y
                = 20
                = 20
NumLevels_X
Height
                "400px"
                "200px"
Width
Title
                "Heatmap"
ShowLabels
                character
Title.YAxis
                character
Title.XAxis
                character
                "dark-blue"
EchartsTheme
MouseScroll
                logical, zoom via mouse scroll
TextColor
                character
title.fontSize 22
title.fontWeight
                "bold"
title.textShadowColor
                '#63aeff'
title.textShadowBlur
title.textShadowOffsetY
title.textShadowOffsetX
                -1
yaxis.fontSize 14
xaxis.fontSize 14
zaxis.fontSize 14
xaxis.rotate
                0
yaxis.rotate
                0
ContainLabel
                TRUE
Debug
                Debugging purposes
```

Value

plot

Author(s)

Adrian Antico

See Also

```
Other Standard Plots: Plot.ACF(), Plot.Area(), Plot.Bar(), Plot.Box(), Plot.Copula3D(), Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.Donut(), Plot.HeatMap(), Plot.Histogram(), Plot.Line(), Plot.PACF(), Plot.Parallel(), Plot.Pie(), Plot.ProbabilityPlot(), Plot.Radar(), Plot.River(), Plot.Rosetype(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step(), Plot.WordCloud()
```

Plot.BinaryMetrics 15

Examples

```
# Create fake data
data <- AutoPlots::FakeDataGenerator(N = 100000)</pre>
# Echarts 3D Bar Chart
AutoPlots::Plot.BarPlot3D(
  dt = data,
  PreAgg = FALSE,
  AggMethod = 'mean',
  XVar = "Factor_1",
  YVar = "Factor_2",
  ZVar = "Adrian",
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  ZVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  NumberBins = 21,
  NumLevels_Y = 33,
  NumLevels_X = 33,
  Height = NULL,
  Width = NULL,
  Title = "3D Bar Plot",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  MouseScroll = TRUE,
  TextColor = "black",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = '#63aeff',
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  yaxis.fontSize = 14,
  xaxis.fontSize = 14,
  zaxis.fontSize = 14,
  xaxis.rotate = 0,
  yaxis.rotate = 0,
  ContainLabel = TRUE,
  Debug = FALSE)
```

Plot.BinaryMetrics

Plot.BinaryMetrics

Description

Line plot of evaluation metrics across thresholds

16 Plot.BinaryMetrics

Usage

```
Plot.BinaryMetrics(
  dt = NULL,
  PreAgg = FALSE,
  AggMethod = "mean",
  SampleSize = 100000L,
  XVar = NULL,
  YVar = NULL,
  ZVar = NULL,
 Metrics = c("Utility", "MCC", "Accuracy", "F1_Score", "F2_Score", "F0.5_Score",
    "ThreatScore", "TPR", "TNR", "FNR", "FPR", "FDR", "FOR"),
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  ZVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  CostMatrixWeights = c(0, 1, 1, 0),
  NumberBins = 20,
  Height = NULL,
 Width = NULL,
  Title = "Binary Metrics",
  MouseScroll = TRUE,
  ShowLabels = FALSE,
  Title.YAxis = NULL,
 Title.XAxis = NULL,
  EchartsTheme = "macarons",
  EchartsLabels = FALSE,
 TimeLine = TRUE,
  TextColor = "white",
  Debug = FALSE
)
```

Arguments

dt source data.table

PreAgg logical
AggMethod character
SampleSize numeric

XVar X-Axis variable name
YVar Y-Axis variable name

ZVar character

Metrics Multiple selection "Utility", "MCC", "Accuracy", "F1_Score", "F2_Score", "F0.5_Score", "ThreatScore", "T1_Score", "F2_Score", "F1_Score", "F1_

GroupVar Character variable

Plot.BinaryMetrics 17

YVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

ZVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

FacetRows Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a

numeric value for the number of output grid rows

FacetCols Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply

a numeric value for the number of output grid columns

FacetLevels Faceting rows x columns is the max number of levels allowed in a grid. If your

Group Var has more you can supply the levels to display.

CostMatrixWeights

vector length 4. FP, FP, FN, TP

NumberBins numeric Height "400px" Width "200px" Title character

MouseScroll logical, zoom via mouse scroll

ShowLabels character
Title.YAxis character
Title.XAxis character

EchartsTheme "auritus", "azul", "bee-inspired", "blue", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo",

#' "essos", "forest", "fresh-cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired",

#' "jazz", "london", "dark", "macarons", "macarons2", "mint", "purple-passion", "red-

velvet", "red", "royal", #' "sakura", "shine", "tech-blue", "vintage", "walden", "wef", "weforum", "west

EchartsLabels character
TimeLine logical
TextColor hex character

Debugging purposes

Value

plot

Author(s)

Adrian Antico

See Also

Other Model Evaluation: Plot.Calibration.Box(), Plot.Calibration.Line(), Plot.ConfusionMatrix(), Plot.Gains(), Plot.Lift(), Plot.PartialDependence.Box(), Plot.PartialDependence.HeatMap(), Plot.PartialDependence.Line(), Plot.ROC(), Plot.Residuals.Histogram(), Plot.Residuals.Scatter(), Plot.ShapImportance(), Plot.VariableImportance()

18 Plot.Box

Plot.Box

Plot.Box

Description

Build a box plot by simply passing arguments to a single function. It will sample your data using SampleSize number of rows. Sampled data is randomized.

Usage

```
Plot.Box(
  dt = NULL,
  SampleSize = 100000L,
  XVar = NULL,
  YVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
 FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
 Height = NULL,
 Width = NULL,
  Title = "Box Plot",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
 MouseScroll = TRUE,
  TimeLine = FALSE,
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  xaxis.fontSize = 14,
 yaxis.fontSize = 14,
  xaxis.rotate = 0,
 yaxis.rotate = 0,
  ContainLabel = TRUE,
  Debug = FALSE
)
```

Arguments

dt

source data.table

Plot.Box

SampleSize numeric XVar X-Axis variable name YVar Y-Axis variable name Character variable GroupVar "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-YVarTrans ize", "BoxCox", "YeoJohnson" "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-**XVarTrans** ize", "BoxCox", "YeoJohnson" FacetRows Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply FacetCols a numeric value for the number of output grid columns FacetLevels Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display. "400px" Height Width "200px" Title character ShowLabels | character Title.YAxis character Title.XAxis character **EchartsTheme** "auritus", "azul", "bee-inspired", "blue", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo", "" "essos", "forest", "fresh-cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired", #' "jazz", "london", "dark", "macarons", "macarons2", "mint", "purple-passion", "redvelvet", "red", "roma", "royal", #' "sakura", "shine", "tech-blue", "vintage", "walden", "wef", "weforum", "west welvet", "royal", #' "sakura", "shine", "tech-blue", "vintage", "walden", "wef", "weforum", "west welvet", "tech-blue", "tech-MouseScroll logical, zoom via mouse scroll TimeLine Logical TextColor character hex title.fontSize 22 title.fontWeight "bold" title.textShadowColor '#63aeff' title.textShadowBlur title.textShadowOffsetY title.textShadowOffsetX -1 xaxis.fontSize 14 yaxis.fontSize 14 xaxis.rotate 0 yaxis.rotate 0 ContainLabel **TRUE**

Debug

Debugging purposes

20 Plot.Box

Value

plot

Author(s)

Adrian Antico

See Also

```
Other Standard Plots: Plot.ACF(), Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Copula3D(), Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.Donut(), Plot.HeatMap(), Plot.Histogram(), Plot.Line(), Plot.PACF(), Plot.Parallel(), Plot.Pie(), Plot.ProbabilityPlot(), Plot.Radar(), Plot.River(), Plot.Rosetype(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step(), Plot.WordCloud()
```

Examples

```
# Create fake data
dt <- data.table::data.table(Y = qnorm(p = runif(10000)), GV = sample(LETTERS, 1000, TRUE))
AutoPlots::Plot.Box(
  dt = dt,
  SampleSize = 100000L,
  XVar = "GV",
  YVar = "Y",
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  Height = NULL,
  Width = NULL,
  Title = 'Box Plot',
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  MouseScroll = TRUE,
  TimeLine = FALSE,
  TextColor = "black".
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = '#63aeff',
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  xaxis.fontSize = 14,
  yaxis.fontSize = 14,
  xaxis.rotate = 0,
  yaxis.rotate = 0,
```

Plot.Calibration.Box 21

```
ContainLabel = TRUE,
Debug = FALSE)
```

Plot.Calibration.Box Plot.Calibration.Box

Description

This function automatically builds calibration plots and calibration boxplots for model evaluation using regression, quantile regression, and binary and multinomial classification

Usage

```
Plot.Calibration.Box(
  dt = NULL,
  SampleSize = 100000L,
  AggMethod = "mean",
  XVar = NULL,
  YVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  NumberBins = 21,
 Height = NULL,
  Width = NULL,
  Title = "Calibration Box",
  MouseScroll = TRUE,
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  TimeLine = FALSE,
  TextColor = "white",
  Debug = FALSE
)
```

Arguments

dt source data.table

SampleSize numeric

AggMethod character

XVar X-Axis variable name

22 Plot.Calibration.Box

YVar Y-Axis variable name
GroupVar Character variable

YVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

FacetRows Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a

numeric value for the number of output grid rows

FacetCols Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply

a numeric value for the number of output grid columns

FacetLevels Faceting rows x columns is the max number of levels allowed in a grid. If your

Group Var has more you can supply the levels to display.

NumberBins numeric Height "400px" Width "200px" Title character

MouseScroll logical, zoom via mouse scroll

ShowLabels character
Title.YAxis character
Title.XAxis character

EchartsTheme "auritus", "azul", "bee-inspired", "blue", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo",

#' "essos", "forest", "fresh-cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired",

#' "jazz", "london", "dark", "macarons", "macarons2", "mint", "purple-passion", "red-

velvet", "red", "roma", "royal", #' "sakura", "shine", "tech-blue", "vintage", "walden", "wef", "weforum", "wes

TimeLine logical

TextColor "Not Implemented"

Debug Debugging purposes

Value

plot

Author(s)

Adrian Antico

See Also

```
Other Model Evaluation: Plot.BinaryMetrics(), Plot.Calibration.Line(), Plot.ConfusionMatrix(), Plot.Gains(), Plot.Lift(), Plot.PartialDependence.Box(), Plot.PartialDependence.HeatMap(), Plot.PartialDependence.Line(), Plot.ROC(), Plot.Residuals.Histogram(), Plot.Residuals.Scatter(), Plot.ShapImportance(), Plot.VariableImportance()
```

Plot.Calibration.Line 23

Plot.Calibration.Line Plot.Calibration.Line

Description

This function automatically builds calibration plots and calibration boxplots for model evaluation using regression, quantile regression, and binary and multinomial classification

Usage

```
Plot.Calibration.Line(
  dt = NULL,
  AggMethod = "mean",
 XVar = NULL,
  YVar = NULL,
 GroupVar = NULL,
  YVarTrans = "Identity",
 XVarTrans = "Identity",
 FacetRows = 1,
 FacetCols = 1,
  FacetLevels = NULL,
 NumberBins = 21,
 Height = NULL,
 Width = NULL,
 Title = "Calibration Line",
  ShowLabels = FALSE,
 Title.YAxis = NULL,
 Title.XAxis = NULL,
 EchartsTheme = "macarons",
  TimeLine = FALSE,
 MouseScroll = TRUE,
 TextColor = "white",
 Debug = FALSE
)
```

Arguments

dt	source data.table
AggMethod	character
XVar	X-Axis variable name
YVar	Y-Axis variable name
GroupVar	Character variable
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"

24 Plot.Calibration.Line

FacetRows Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a

numeric value for the number of output grid rows

FacetCols Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply

a numeric value for the number of output grid columns

FacetLevels Faceting rows x columns is the max number of levels allowed in a grid. If your

Group Var has more you can supply the levels to display.

NumberBins numeric

Height "400px"

Width "200px"

Title character

ShowLabels character

Title.YAxis character

Title.XAxis character

EchartsTheme "auritus", "azul", "bee-inspired", "blue", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo",

#' "essos", "forest", "fresh-cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired",

#" "jazz", "london", "dark", "macarons", "macarons2", "mint", "purple-passion", "red-

velvet", "red", "roma", "royal", #' "sakura", "shine", "tech-blue", "vintage", "walden", "wef", "weforum", "west

TimeLine logical

MouseScroll logical, zoom via mouse scroll

TextColor "Not Implemented"

Debugging purposes

Value

plot

Author(s)

Adrian Antico

See Also

```
Other Model Evaluation: Plot.BinaryMetrics(), Plot.Calibration.Box(), Plot.ConfusionMatrix(), Plot.Gains(), Plot.Lift(), Plot.PartialDependence.Box(), Plot.PartialDependence.HeatMap(), Plot.PartialDependence.Line(), Plot.Roc(), Plot.Residuals.Histogram(), Plot.Residuals.Scatter(), Plot.ShapImportance(), Plot.VariableImportance()
```

Plot.ConfusionMatrix 25

Description

Generate variable importance plots

Usage

```
Plot.ConfusionMatrix(
  dt = NULL,
  PreAgg = FALSE,
  XVar = NULL,
  YVar = NULL,
  ZVar = "N",
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  ZVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
 NumberBins = 21,
 NumLevels_X = 50,
 NumLevels_Y = 50,
 Height = NULL,
 Width = NULL,
  Title = "Confusion Matrix",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
 MouseScroll = TRUE,
  TimeLine = TRUE,
  TextColor = "white",
  AggMethod = "count",
  GroupVar = NULL,
  xaxis.rotate = 0,
  yaxis.rotate = 0,
 ContainLabel = TRUE,
  Debug = FALSE
)
```

Arguments

```
dt source data.table
PreAgg FALSE
```

26 Plot.ConfusionMatrix

XVar Column name of X-Axis variable. If NULL then ignored YVar Column name of Y-Axis variable. If NULL then ignored

ZVar = "N"

YVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

ZVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

FacetRows Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a

numeric value for the number of output grid rows

FacetCols Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply

a numeric value for the number of output grid columns

FacetLevels Faceting rows x columns is the max number of levels allowed in a grid. If your

Group Var has more you can supply the levels to display.

NumberBins = 21,

NumLevels_X = NumLevels_Y,
NumLevels_Y = NumLevels_X,

 $\begin{array}{lll} \mbox{Height} & "400px" \\ \mbox{Width} & "200px" \\ \mbox{Title} & \mbox{title} \\ \mbox{ShowLabels} & \mbox{character} \end{array}$

Title.YAxis character
Title.XAxis character

EchartsTheme "auritus", "azul", "bee-inspired", "blue", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo",

#' "essos", "forest", "fresh-cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired",

#' "jazz","london","dark","macarons","macarons2","mint","purple-passion","red-

velvet","red","roma","royal", #' "sakura","shine","tech-blue","vintage","walden","wef","weforum","wes

MouseScroll logical, zoom via mouse scroll

TimeLine logical
TextColor 'darkblue'

AggMethod Choose from 'mean', 'sum', 'sd', and 'median'

GroupVar = NULL
xaxis.rotate numeric
yaxis.rotate numeric
ContainLabel logical

Debugging purposes

Value

plot

Plot.Copula 27

Author(s)

Adrian Antico

See Also

```
Other Model Evaluation: Plot.BinaryMetrics(), Plot.Calibration.Box(), Plot.Calibration.Line(), Plot.Gains(), Plot.Lift(), Plot.PartialDependence.Box(), Plot.PartialDependence.HeatMap(), Plot.PartialDependence.Line(), Plot.Roc(), Plot.Residuals.Histogram(), Plot.Residuals.Scatter(), Plot.ShapImportance(), Plot.VariableImportance()
```

Plot.Copula

Plot.Copula

Description

Build a copula plot by simply passing arguments to a single function. It will sample your data using SampleSize number of rows. Sampled data is randomized.

Usage

```
Plot.Copula(
  dt = NULL,
  SampleSize = 30000L,
  XVar = NULL,
  YVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
 Height = NULL,
  Width = NULL,
  Title = "Copula Plot",
  ShowLabels = FALSE,
  AddGLM = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
 EchartsTheme = "macarons",
 MouseScroll = TRUE,
  TimeLine = FALSE,
  TextColor = "white",
  yaxis.fontSize = 14,
  xaxis.fontSize = 14,
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
```

28 Plot.Copula

```
title.textShadowBlur = 3,
title.textShadowOffsetY = 1,
title.textShadowOffsetX = -1,
xaxis.rotate = 0,
yaxis.rotate = 0,
ContainLabel = TRUE,
Debug = FALSE
)
```

Arguments

dt source data.table

SampleSize An integer for the number of rows to use. Sampled data is randomized. If NULL

then ignored

XVar X-Axis variable name
YVar Y-Axis variable name

GroupVar Requires an XVar and YVar already be defined

YVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

FacetRows Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a

numeric value for the number of output grid rows

FacetCols Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply

a numeric value for the number of output grid columns

FacetLevels Faceting rows x columns is the max number of levels allowed in a grid. If your

Group Var has more you can supply the levels to display.

Height "400px" Width "200px" Title 'Copula Plot' ShowLabels character AddGLM logical Title.YAxis character Title.XAxis character EchartsTheme = "dark-blue",

MouseScroll logical, zoom via mouse scroll

TimeLine Logical
TextColor 'darkblue'
yaxis.fontSize 14
xaxis.fontSize 14

title.fontSize 22

Plot.Copula 29

```
title.fontWeight
                "bold"
title.textShadowColor
                '#63aeff'
title.textShadowBlur
title.textShadowOffsetY
title.textShadowOffsetX
                -1
xaxis.rotate
                0
yaxis.rotate
                0
ContainLabel
                TRUE
Debug
                Debugging purposes
```

Value

plot

Author(s)

Adrian Antico

See Also

```
Other Standard Plots: Plot.ACF(), Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Box(), Plot.Copula3D(), Plot.CorrMatrix(), Plot.Density(), Plot.Donut(), Plot.HeatMap(), Plot.Histogram(), Plot.Line(), Plot.PACF(), Plot.Parallel(), Plot.Pie(), Plot.ProbabilityPlot(), Plot.Radar(), Plot.River(), Plot.Rosetype(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step(), Plot.WordCloud()
```

Examples

```
# Create fake data
data <- AutoPlots::FakeDataGenerator(N = 100000)</pre>
# Echarts Copula Plot Chart
AutoPlots::Plot.Copula(
  dt = data,
  SampleSize = 10000,
  XVar = "Independent_Variable8",
  YVar = "Adrian",
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  Height = NULL,
  Width = NULL,
```

30 Plot.Copula3D

```
Title = 'Copula Plot',
ShowLabels = FALSE,
AddGLM = FALSE,
Title.YAxis = NULL,
Title.XAxis = NULL,
EchartsTheme = "macarons",
MouseScroll = TRUE,
TimeLine = FALSE,
TextColor = "black",
yaxis.fontSize = 14,
xaxis.fontSize = 14,
title.fontSize = 22,
title.fontWeight = "bold",
title.textShadowColor = '#63aeff',
title.textShadowBlur = 3,
title.textShadowOffsetY = 1,
title.textShadowOffsetX = -1,
xaxis.rotate = 0,
yaxis.rotate = 0,
ContainLabel = TRUE,
Debug = FALSE)
```

Plot.Copula3D

Plot.Copula3D

Description

Build a 3D-copula plot by simply passing arguments to a single function. It will sample your data using SampleSize number of rows. Sampled data is randomized.

Usage

```
Plot.Copula3D(
  dt = NULL,
  SampleSize = 1e+05,
  XVar = NULL,
  YVar = NULL,
  ZVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  ZVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  GroupVar = NULL,
  Height = NULL,
  Width = NULL,
  Title = "Copula 3D",
```

Plot.Copula3D 31

```
ShowLabels = FALSE,
 Title.YAxis = NULL,
 Title.XAxis = NULL,
 EchartsTheme = "dark-blue",
 TimeLine = FALSE,
 TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
 yaxis.fontSize = 14,
 xaxis.fontSize = 14,
 zaxis.fontSize = 14,
  xaxis.rotate = 0,
 yaxis.rotate = 0,
  zaxis.rotate = 0,
 ContainLabel = TRUE,
 Debug = FALSE
)
```

"200px"

Arguments

Width

dt	source data.table
SampleSize	An integer for the number of rows to use. Sampled data is randomized. If NULL then ignored
XVar	X-Axis variable name
YVar	Y-Axis variable name
ZVar	Z-Axis variable name
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
ZVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows
FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.
GroupVar	Requires an XVar and YVar already be defined
Height	"400px"

32 Plot.Copula3D

```
Title
                'Copula3D Plot'
ShowLabels
                character
Title.YAxis
                character
Title.XAxis
                character
EchartsTheme
                = "dark-blue"
TimeLine
                Logical
TextColor
                'darkblue'
title.fontSize 22
title.fontWeight
                "bold"
title.textShadowColor
                '#63aeff'
title.textShadowBlur
title.textShadowOffsetY
title.textShadowOffsetX
                -1
yaxis.fontSize 14
xaxis.fontSize 14
zaxis.fontSize 14
xaxis.rotate
                0
yaxis.rotate
zaxis.rotate
                0
ContainLabel
                TRUE
Debug
                Debugging purposes
```

Value

plot

Author(s)

Adrian Antico

See Also

```
Other Standard Plots: Plot.ACF(), Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Box(), Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.Donut(), Plot.HeatMap(), Plot.Histogram(), Plot.Line(), Plot.PACF(), Plot.Parallel(), Plot.Pie(), Plot.ProbabilityPlot(), Plot.Radar(), Plot.River(), Plot.Rosetype(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step(), Plot.WordCloud()
```

Plot.CorrMatrix 33

Examples

```
# Create fake data
data <- AutoPlots::FakeDataGenerator(N = 100000)</pre>
data[, Independent_Variable9 := Independent_Variable9 * runif(.N)]
# Echarts Copula Plot Chart
AutoPlots::Plot.Copula3D(
 dt = data,
 SampleSize = 10000,
 XVar = "Adrian",
 YVar = "Independent_Variable9",
 ZVar = "Independent_Variable6",
 YVarTrans = "Identity",
 XVarTrans = "Identity",
 ZVarTrans = "Identity",
 FacetRows = 1,
 FacetCols = 1,
 FacetLevels = NULL,
 GroupVar = NULL,
 Height = NULL,
 Width = NULL,
 Title = 'Copula 3D',
 ShowLabels = FALSE,
 Title.YAxis = NULL,
 Title.XAxis = NULL,
 EchartsTheme = "macarons",
 TimeLine = FALSE,
 TextColor = "black",
 title.fontSize = 22,
 title.fontWeight = "bold",
 title.textShadowColor = '#63aeff',
 title.textShadowBlur = 3,
 title.textShadowOffsetY = 1,
 title.textShadowOffsetX = -1,
 yaxis.fontSize = 14,
 xaxis.fontSize = 14,
 zaxis.fontSize = 14,
 xaxis.rotate = 0,
 yaxis.rotate = 0,
 zaxis.rotate = 0,
 ContainLabel = TRUE,
 Debug = FALSE)
```

Plot.CorrMatrix

Plot.CorrMatrix

Description

Build a correlation matrix plot by simply passing arguments to a single function. It will sample your data using SampleSize number of rows. Sampled data is randomized.

34 Plot.CorrMatrix

Usage

```
Plot.CorrMatrix(
  dt = NULL,
  CorrVars = NULL,
  CorrVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
 Method = "spearman",
  PreAgg = FALSE,
  MaxNAPercent = 0.05,
 Height = NULL,
 Width = NULL,
  Title = "Correlation Matrix",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
 MouseScroll = TRUE,
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  yaxis.fontSize = 14,
  xaxis.fontSize = 14,
  Debug = FALSE
)
```

Arguments dt.

MaxNAPercent

numeric

dt	source data.table
CorrVars	vector of variable names
CorrVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows
FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.
Method	character
PreAgg	logical

Plot.CorrMatrix 35

```
"400px"
Height
Width
                   "200px"
Title
                  character
ShowLabels
                  character
Title.YAxis
                  character
Title.XAxis
                  character
EchartsTheme
                  "auritus", "azul", "bee-inspired", "blue", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo",
                  #' "essos", "forest", "fresh-cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired",
                  #' "jazz", "london", "dark", "macarons", "macarons2", "mint", "purple-passion", "red-
                  velvet", "red", "roma", "royal", #' "sakura", "shine", "tech-blue", "vintage", "walden", "wef", "weforum", "west
MouseScroll
                  logical, zoom via mouse scroll
TextColor
                  character hex
title.fontSize 22
title.fontWeight
                   "bold"
title.textShadowColor
                   '#63aeff'
title.textShadowBlur
title.textShadowOffsetY
title.textShadowOffsetX
                  -1
yaxis.fontSize 14
xaxis.fontSize 14
Debug
                  Debugging purposes
```

Value

plot

Author(s)

Adrian Antico

See Also

```
Other Standard Plots: Plot.ACF(), Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Box(), Plot.Copula3D(), Plot.Copula(), Plot.Density(), Plot.Donut(), Plot.HeatMap(), Plot.Histogram(), Plot.Line(), Plot.PACF(), Plot.Parallel(), Plot.Pie(), Plot.ProbabilityPlot(), Plot.Radar(), Plot.River(), Plot.Rosetype(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step(), Plot.WordCloud()
```

36 Plot.Density

Examples

```
# Create fake data
data <- AutoPlots::FakeDataGenerator(N = 100000)</pre>
# Echarts CorrMatrix Plot Chart
AutoPlots::Plot.CorrMatrix(
  dt = data,
  CorrVars = c(
    "Adrian",
    "Independent_Variable1",
    "Independent_Variable2",
    "Independent_Variable3",
    "Independent_Variable4",
    "Independent_Variable5"),
  CorrVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  Method = 'pearson',
  PreAgg = FALSE,
  MaxNAPercent = 0.05,
  Height = NULL,
  Width = NULL,
  Title = "Correlation Matrix",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  MouseScroll = TRUE,
  TextColor = "black",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = '#63aeff',
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  yaxis.fontSize = 14,
  xaxis.fontSize = 14,
  Debug = FALSE)
```

Plot.Density

Plot.Density

Description

Density plots, by groups, with transparent continuous plots

Plot.Density 37

Usage

```
Plot.Density(
  dt = NULL,
  SampleSize = 100000L,
  YVar = NULL,
  XVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  Height = NULL,
  Width = NULL,
  MouseScroll = TRUE,
  Title = "Density Plot",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  TimeLine = FALSE,
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  xaxis.fontSize = 14,
  yaxis.fontSize = 14,
  xaxis.rotate = 0,
  yaxis.rotate = 0,
  ContainLabel = TRUE,
  Debug = FALSE
)
```

Arguments

```
dt
                 source data.table
                 = 100000L
SampleSize
YVar
                 Y-Axis variable name
                 X-Axis variable name
XVar
                 Character variable
GroupVar
                 "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-
YVarTrans
                 ize", "BoxCox", "YeoJohnson"
                 "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-
XVarTrans
                 ize", "BoxCox", "YeoJohnson"
```

38 Plot.Density

FacetRows Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a

numeric value for the number of output grid rows

FacetCols Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply

a numeric value for the number of output grid columns

FacetLevels Faceting rows x columns is the max number of levels allowed in a grid. If your

GroupVar has more you can supply the levels to display.

Height "400px" Width "200px"

MouseScroll logical, zoom via mouse scroll

Title = "Density Plot"

ShowLabels character
Title.YAxis character
Title.XAxis character

EchartsTheme "auritus", "azul", "bee-inspired", "blue", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo",

#' "essos", "forest", "fresh-cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired",

#' "jazz", "london", "dark", "macarons", "macarons2", "mint", "purple-passion", "red-

velvet", "red", "roma", "royal", #' "sakura", "shine", "tech-blue", "vintage", "walden", "wef", "weforum", "west

TimeLine logical
TextColor "white"

title.fontSize 22
title.fontWeight

"bold"

title.textShadowColor

'#63aeff'

title.textShadowBlur

3

title.textShadowOffsetY

1

title.textShadowOffsetX

-1

xaxis.fontSize 14

yaxis.fontSize 14

 $\mathsf{xaxis}.\mathsf{rotate} = 0$

yaxis.rotate 0

ContainLabel TRUE

Debugging purposes

Value

plot

Plot.Donut 39

See Also

```
Other Standard Plots: Plot.ACF(), Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Box(), Plot.Copula3D(), Plot.Copula(), Plot.CorrMatrix(), Plot.Donut(), Plot.HeatMap(), Plot.Histogram(), Plot.Line(), Plot.PACF(), Plot.Parallel(), Plot.Pie(), Plot.ProbabilityPlot(), Plot.Radar(), Plot.River(), Plot.Rosetype(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step(), Plot.WordCloud()
```

Examples

```
# Create fake data
dt <- data.table::data.table(Y = qnorm(p = runif(10000)))</pre>
# Create plot
AutoPlots::Plot.Density(
 dt = dt,
 SampleSize = 30000L,
 XVar = NULL,
 YVar = "Y",
 GroupVar = NULL,
 YVarTrans = "Identity",
 XVarTrans = "Identity",
 FacetRows = 1,
 FacetCols = 1,
 FacetLevels = NULL,
 Height = NULL,
 Width = NULL,
 EchartsTheme = "macarons",
 Title = "Histogram",
 MouseScroll = TRUE,
 TimeLine = FALSE,
 ShowLabels = FALSE,
 Title.YAxis = NULL,
 Title.XAxis = NULL,
 TextColor = "white",
 title.fontSize = 22,
 title.fontWeight = "bold",
 title.textShadowColor = '#63aeff',
 title.textShadowBlur = 3,
 title.textShadowOffsetY = 1,
 title.textShadowOffsetX = -1,
 xaxis.fontSize = 14,
 yaxis.fontSize = 14,
 Debug = FALSE)
```

40 Plot.Donut

Description

Build a donut plot by simply passing arguments to a single function

Usage

```
Plot.Donut(
  dt = NULL,
 PreAgg = FALSE,
 XVar = NULL,
  YVar = NULL,
 GroupVar = NULL,
  YVarTrans = "Identity",
 XVarTrans = "Identity",
 FacetRows = 1,
 FacetCols = 1,
  FacetLevels = NULL,
  AggMethod = "mean",
 Height = NULL,
 Width = NULL,
 Title = "Donut Plot",
  ShowLabels = FALSE,
 Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
 TimeLine = TRUE,
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  xaxis.fontSize = 14,
 yaxis.fontSize = 14,
 Debug = FALSE
)
```

Arguments

dt	source data.table
PreAgg	logical
XVar	X-Axis variable name
YVar	Y-Axis variable name
GroupVar	Column name of Group Variable for distinct colored histograms by group levels
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"

Plot.Donut 41

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"

FacetRows Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows

Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply

a numeric value for the number of output grid columns

FacetLevels Faceting rows x columns is the max number of levels allowed in a grid. If your

Group Var has more you can supply the levels to display.

AggMethod Choose from 'mean', 'sum', 'sd', and 'median'

Height "400px"
Width "200px"
Title title

FacetCols

ShowLabels character
Title.YAxis character
Title.XAxis character

EchartsTheme "auritus", "azul", "bee-inspired", "blue", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo", "esscut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired", "jazz", "london", "dark", "maximus", "infographic", "inspired", "jazz", "london", "dark", "eduardo", "esscutive, "infographic", "inspired", "jazz", "london", "dark", "maximus", "infographic", "jazz", "london", "dark", "maximus", "jazz", "london", "dark", "maximus", "jazz", "london", "dark", "maximus", "jazz", "london", "dark", "maximus", "jazz", "london", "jazz", "london", "dark", "maximus", "jazz", "london", "lond

passion", "red-velvet", "red", "roma", "royal", "sakura", "shine", "tech-blue", "vintage", "walden", "wef", "wefo

TimeLine logical
TextColor 'darkblue'

title.fontSize Defaults to size 22. Numeric. This changes the size of the title.

title.fontWeight

"bold"

title.textShadowColor

'#63aeff'

title.textShadowBlur

3

 $\verb|title.textShadowOffsetY| \\$

1

title.textShadowOffsetX

-1

xaxis.fontSize 14
yaxis.fontSize 14

Debugging purposes

Value

plot

Author(s)

Adrian Antico

42 Plot.Gains

See Also

```
Other Standard Plots: Plot.ACF(), Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Box(), Plot.Copula3D(), Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.HeatMap(), Plot.Histogram(), Plot.Line(), Plot.PACF(), Plot.Parallel(), Plot.Pie(), Plot.ProbabilityPlot(), Plot.Radar(), Plot.River(), Plot.Rosetype(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step(), Plot.WordCloud()
```

Examples

```
# Create fake data
dt <- data.table::data.table(Y = qnorm(p = runif(10000)), GV = sample(LETTERS, 1000, TRUE))</pre>
# Create plot
AutoPlots::Plot.Donut(
  dt = dt,
  PreAgg = FALSE,
  XVar = "GV",
  YVar = "Y",
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  AggMethod = 'mean',
  Height = NULL,
  Width = NULL,
  Title = 'Pie Chart',
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  TimeLine = TRUE,
  TextColor = "black",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = '#63aeff',
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  xaxis.fontSize = 14,
  yaxis.fontSize = 14,
  Debug = FALSE)
```

Plot.Gains 43

Description

Create a cumulative gains chart

Usage

```
Plot.Gains(
  dt = NULL,
 PreAgg = FALSE,
  XVar = NULL,
  YVar = NULL,
  ZVar = "N",
  GroupVar = NULL,
  YVarTrans = "Identity",
 XVarTrans = "Identity",
  ZVarTrans = "Identity",
 FacetRows = 1,
  FacetCols = 1,
 FacetLevels = NULL,
 NumberBins = 20,
 Height = NULL,
 Width = NULL,
 Title = "Gains Plot",
  ShowLabels = FALSE,
 Title.YAxis = "Gain",
 Title.XAxis = "Population",
  EchartsTheme = "macarons",
 MouseScroll = TRUE,
 TimeLine = TRUE,
 TextColor = "white",
 Debug = FALSE
)
```

source data.table

ize", "BoxCox", "YeoJohnson"

Arguments dt

PreAgg	logical
XVar	X-Axis variable name
YVar	Y-Axis variable name
ZVar	character
GroupVar	Character variable
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
ZVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

44 Plot.Gains

FacetRows Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a

numeric value for the number of output grid rows

FacetCols Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply

a numeric value for the number of output grid columns

FacetLevels Faceting rows x columns is the max number of levels allowed in a grid. If your

GroupVar has more you can supply the levels to display.

NumberBins numeric

Height NULL

Width NULL

Title character

ShowLabels character

Title.YAxis character

Title.XAxis character

EchartsTheme "auritus", "azul", "bee-inspired", "blue", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo",

#' "essos", "forest", "fresh-cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired",

#' "jazz","london","dark","macarons","macarons2","mint","purple-passion","red-

velvet", "red", "roma", "royal", #' "sakura", "shine", "tech-blue", "vintage", "walden", "wef", "weforum", "west

MouseScroll logical, zoom via mouse scroll

TimeLine logical

TextColor character hex

Debugging purposes

Value

plot

Author(s)

Adrian Antico

See Also

```
Other Model Evaluation: Plot.BinaryMetrics(), Plot.Calibration.Box(), Plot.Calibration.Line(), Plot.ConfusionMatrix(), Plot.Lift(), Plot.PartialDependence.Box(), Plot.PartialDependence.HeatMap(), Plot.PartialDependence.Line(), Plot.Roc(), Plot.Residuals.Histogram(), Plot.Residuals.Scatter(), Plot.ShapImportance(), Plot.VariableImportance()
```

Plot.HeatMap 45

Plot.HeatMap

Plot.HeatMap

Description

Create heat maps with numeric or categorical dt

```
Plot.HeatMap(
  dt,
  PreAgg = FALSE,
  AggMethod = "mean",
  XVar = NULL,
  YVar = NULL,
  ZVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  ZVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  NumberBins = 21,
  NumLevels_Y = 33,
  NumLevels_X = 33,
  Height = NULL,
  Width = NULL,
  Title = "Heatmap",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "dark",
  MouseScroll = TRUE,
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  yaxis.fontSize = 14,
  xaxis.fontSize = 14,
  xaxis.rotate = 0,
  yaxis.rotate = 0,
  ContainLabel = TRUE,
  Debug = FALSE
)
```

46 Plot.HeatMap

Arguments

title.textShadowBlur

title.textShadowOffsetY

1

dt source data.table PreAgg logical AggMethod 'mean', 'median', 'sum', 'sd', 'coeffvar', 'count' X-Axis variable name XVar YVar Y-Axis variable name ZVar Z-Axis variable name YVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-**XVarTrans** ize", "BoxCox", "YeoJohnson" "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-**ZVarTrans** ize", "BoxCox", "YeoJohnson" FacetRows Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows FacetCols Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns FacetLevels Faceting rows x columns is the max number of levels allowed in a grid. If your Group Var has more you can supply the levels to display. NumberBins = 21NumLevels_Y = 20NumLevels_X = 20.Height "400px" "200px" Width Title "Heatmap" ShowLabels character Title.YAxis character Title.XAxis character EchartsTheme "dark-blue" MouseScroll logical, zoom via mouse scroll TextColor title.fontSize 22 title.fontWeight "bold" title.textShadowColor '#63aeff'

Plot.HeatMap 47

```
\begin{tabular}{llll} title.textShadowOffsetX & -1 & & \\ & & -1 & & \\ yaxis.fontSize & 14 & & \\ xaxis.fontSize & 14 & & \\ xaxis.rotate & 0 & & \\ yaxis.rotate & 0 & & \\ ContainLabel & TRUE & \\ Debug & Debugging parameter & \\ \end{tabular}
```

Value

plot

Author(s)

Adrian Antico

See Also

```
Other Standard Plots: Plot.ACF(), Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Box(), Plot.Copula3D(), Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.Donut(), Plot.Histogram(), Plot.Line(), Plot.PACF(), Plot.Parallel(), Plot.Pie(), Plot.ProbabilityPlot(), Plot.Radar(), Plot.River(), Plot.Rosetype(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step(), Plot.WordCloud()
```

Examples

```
# Create fake data
data <- AutoPlots::FakeDataGenerator(N = 100000)</pre>
# Echarts Heatmap Plot Chart
AutoPlots::Plot.HeatMap(
 dt = data,
 PreAgg = FALSE,
 XVar = "Factor_1",
 YVar = "Factor_2",
 ZVar = "Independent_Variable6",
 XVarTrans = "Identity",
 ZVarTrans = "Identity",
 FacetRows = 1,
 FacetCols = 1,
 FacetLevels = NULL,
 NumberBins = 21,
 NumLevels_Y = 33,
 NumLevels_X = 33,
 Height = NULL,
 Width = NULL,
 Title = "Heatmap",
 ShowLabels = FALSE,
 Title.YAxis = NULL,
```

48 Plot.Histogram

```
Title.XAxis = NULL,
EchartsTheme = "macarons",
MouseScroll = TRUE,
TextColor = "black",
title.fontSize = 22,
title.fontWeight = "bold",
title.textShadowColor = '#63aeff',
title.textShadowBlur = 3,
title.textShadowOffsetY = 1,
title.textShadowOffsetX = -1,
yaxis.fontSize = 14,
xaxis.fontSize = 14,
xaxis.rotate = 0,
yaxis.rotate = 0,
ContainLabel = TRUE,
Debug = FALSE)
```

Plot.Histogram

Plot.Histogram

Description

Build a histogram plot by simply passing arguments to a single function. It will sample your data using SampleSize number of rows. Sampled data is randomized.

```
Plot.Histogram(
  dt = NULL,
  SampleSize = 30000L,
  XVar = NULL,
  YVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
 NumberBins = 30,
 Height = NULL,
 Width = NULL,
  EchartsTheme = "macarons",
  Title = "Histogram",
 MouseScroll = TRUE,
  TimeLine = FALSE,
  ShowLabels = FALSE,
  Title.YAxis = NULL,
```

Plot.Histogram 49

```
Title.XAxis = NULL,
TextColor = "white",
title.fontSize = 22,
title.fontWeight = "bold",
title.textShadowColor = "#63aeff",
title.textShadowBlur = 3,
title.textShadowOffsetY = 1,
title.textShadowOffsetX = -1,
xaxis.fontSize = 14,
yaxis.fontSize = 14,
Debug = FALSE
)
```

Arguments

dt source data.table

SampleSize An integer for the number of rows to use. Sampled data is randomized. If NULL

then ignored

XVar X-Axis variable name
YVar Y-Axis variable name

Group Variable for distinct colored histograms by group levels

YVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

FacetRows Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a

numeric value for the number of output grid rows

FacetCols Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply

a numeric value for the number of output grid columns

FacetLevels Faceting rows x columns is the max number of levels allowed in a grid. If your

GroupVar has more you can supply the levels to display.

 $\begin{array}{lll} \mbox{NumberBins} &= 30 \\ \mbox{Height} & "400\mbox{px"} \\ \mbox{Width} & "200\mbox{px"} \end{array}$

EchartsTheme = EchartsTheme,

Title character

MouseScroll logical, zoom via mouse scroll

TimeLine logical
ShowLabels FALSE
Title.YAxis NULL
Title.XAxis NULL
TextColor "white"

50 Plot.Histogram

Value

plot

Author(s)

Adrian Antico

See Also

```
Other Standard Plots: Plot.ACF(), Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Box(), Plot.Copula3D(), Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.Donut(), Plot.HeatMap(), Plot.Line(), Plot.PACF(), Plot.Parallel(), Plot.Pie(), Plot.ProbabilityPlot(), Plot.Radar(), Plot.River(), Plot.Rosetype(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step(), Plot.WordCloud()
```

Examples

```
# Create fake data
dt <- data.table::data.table(Y = qnorm(p = runif(10000)))</pre>
# Create plot
AutoPlots::Plot.Histogram(
  dt = dt,
  SampleSize = 30000L,
  XVar = NULL,
  YVar = "Y",
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  NumberBins = 30,
  Height = NULL,
```

Plot.Lift 51

```
Width = NULL,
EchartsTheme = "macarons",
Title = "Histogram",
MouseScrol1 = TRUE,
TimeLine = FALSE,
ShowLabels = FALSE,
Title.YAxis = NULL,
Title.XAxis = NULL,
TextColor = "white",
title.fontSize = 22,
title.fontWeight = "bold",
title.textShadowColor = '#63aeff',
title.textShadowBlur = 3,
title.textShadowOffsetY = 1,
title.textShadowOffsetX = -1,
xaxis.fontSize = 14,
yaxis.fontSize = 14,
Debug = FALSE)
```

Plot.Lift

Plot.Lift

Description

Create a cumulative gains chart

```
Plot.Lift(
  dt = NULL,
  PreAgg = FALSE,
  XVar = NULL,
  YVar = NULL,
  ZVar = "N",
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  ZVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  NumberBins = 20,
  Height = NULL,
 Width = NULL,
  Title = "Confusion Matrix",
  ShowLabels = FALSE,
  Title.YAxis = "Lift",
  Title.XAxis = "Population",
```

52 Plot,Lift

```
EchartsTheme = "macarons",
MouseScroll = TRUE,
TimeLine = TRUE,
TextColor = "white",
Debug = FALSE
)
```

Arguments

dt source data.table

PreAgg logical

XVar X-Axis variable name
YVar Y-Axis variable name

ZVar character

GroupVar Character variable

YVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

ZVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

FacetRows Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a

numeric value for the number of output grid rows

FacetCols Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply

a numeric value for the number of output grid columns

FacetLevels Faceting rows x columns is the max number of levels allowed in a grid. If your

GroupVar has more you can supply the levels to display.

NumberBins numeric
Height "400px"
Width "200px"
Title character
ShowLabels character
Title.YAxis character
Title.XAxis character

EchartsTheme "auritus", "azul", "bee-inspired", "blue", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo",

#' "essos", "forest", "fresh-cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired",

#' "jazz", "london", "dark", "macarons", "macarons2", "mint", "purple-passion", "red-

velvet", "red", "roma", "royal", #' "sakura", "shine", "tech-blue", "vintage", "walden", "wef", "weforum", "west

MouseScroll logical, zoom via mouse scroll

TimeLine logical

TextColor character hex

Debugging purposes

Plot.Line 53

Value

plot

Author(s)

Adrian Antico

See Also

```
Other Model Evaluation: Plot.BinaryMetrics(), Plot.Calibration.Box(), Plot.Calibration.Line(), Plot.ConfusionMatrix(), Plot.Gains(), Plot.PartialDependence.Box(), Plot.PartialDependence.HeatMap(), Plot.PartialDependence.Line(), Plot.RoC(), Plot.Residuals.Histogram(), Plot.Residuals.Scatter(), Plot.ShapImportance(), Plot.VariableImportance()
```

Plot.Line

Plot.Line

Description

This function automatically builds calibration plots and calibration boxplots for model evaluation using regression, quantile regression, and binary and multinomial classification

```
Plot.Line(
  dt = NULL,
  AggMethod = "mean",
  PreAgg = TRUE,
  XVar = NULL,
  YVar = NULL,
  DualYVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  DualYVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  Height = NULL,
 Width = NULL,
  Title = "Line Plot",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  MouseScroll = TRUE,
  TimeLine = TRUE,
```

54 Plot.Line

```
Area = FALSE,
 Alpha = 0.5,
  Smooth = TRUE,
  ShowSymbol = FALSE,
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  xaxis.fontSize = 14,
  yaxis.fontSize = 14,
  xaxis.rotate = 0,
  yaxis.rotate = 0,
  ContainLabel = TRUE,
 DarkMode = FALSE,
 Debug = FALSE
)
```

Arguments

dt source data.table

AggMethod character PreAgg logical

XVar X-Axis variable name

YVar Y-Axis variable name. You can supply multiple YVars

DualYVar Secondary Y-Axis variables. Leave NULL for no secondary axis. Only one

variable is allowed and when this is set only one YVar is allowed. An error will

be thrown if those conditions are not met

GroupVar One Grouping Variable

YVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

DualYVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

FacetRows Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a

numeric value for the number of output grid rows

FacetCols Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply

a numeric value for the number of output grid columns

FacetLevels Faceting rows x columns is the max number of levels allowed in a grid. If your

Group Var has more you can supply the levels to display.

Height NULL Width NULL

Plot.Line 55

```
"Title"
    Title
    ShowLabels
                    character
    Title.YAxis
                     character
    Title.XAxis
                     character
    EchartsTheme
                     Provide an "Echarts" theme
    MouseScroll
                    logical, zoom via mouse scroll
    TimeLine
                    Logical
    Area
                    logical
    Alpha
                    0 to 1 for setting transparency
    Smooth
                    = TRUE
                    = FALSE
    ShowSymbol ShowSymbol
                     "Not Implemented"
    TextColor
    title.fontSize 22
    title.fontWeight
                     "bold"
    title.textShadowColor
                     '#63aeff'
    title.textShadowBlur
    title.textShadowOffsetY
    title.textShadowOffsetX
                     -1
    xaxis.fontSize 14
   yaxis.fontSize 14
    xaxis.rotate
    yaxis.rotate
                    0
    ContainLabel
                    TRUE
   DarkMode
                    FALSE
    Debug
                    Debugging purposes
Value
   plot
Author(s)
    Adrian Antico
See Also
    Other Standard Plots: Plot.ACF(), Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Box(),
    Plot.Copula3D(), Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.Donut(), Plot.HeatMap(),
    Plot.Histogram(), Plot.PACF(), Plot.Parallel(), Plot.Pie(), Plot.ProbabilityPlot(),
```

Plot.Radar(), Plot.River(), Plot.Rosetype(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(),

Plot.Step(), Plot.WordCloud()

56 Plot.PACF

Examples

```
# Create fake data
data <- AutoPlots::FakeDataGenerator(N = 1000)

# Build Line plot
AutoPlots::Plot.Line(
    dt = data,
    PreAgg = FALSE,
    AggMethod = "mean",
    XVar = "DateTime",
    YVar = "Independent_Variable3",
    YVarTrans = "LogPlus1",
    DualYVar = "Independent_Variable6",
    DualYVarTrans = "LogPlus1",
    GroupVar = NULL,
    EchartsTheme = "macarons")</pre>
```

Plot.PACF

Plot.PACF

Description

Build a partial autocorrelation plot by simply passing arguments to a single function

```
Plot.PACF(
  dt = NULL,
  YVar = NULL,
 DateVar = NULL,
  TimeUnit = NULL,
  MaxLags = 50,
  YVarTrans = "Identity",
  AggMethod = "sum",
 Height = NULL,
 Width = NULL,
  Title = "Partial Autocorrelation Plot",
  EchartsTheme = "macarons",
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  xaxis.fontSize = 14,
  yaxis.fontSize = 14,
```

Plot.PACF 57

```
xaxis.rotate = 0,
yaxis.rotate = 0,
ContainLabel = TRUE,
Debug = FALSE
)
```

Arguments

dt source data.table YVar Y-Axis variable name Date column in data DateVar TimeUnit Select from "hour", "day", "week", "month", "quarter", "year" MaxLags Max value for lags to test "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-YVarTrans ize", "BoxCox", "YeoJohnson" AggMethod Choose from 'mean', 'sum', 'sd', and 'median' Height "400px" Width "200px" Title title "auritus", "azul", "bee-inspired", "blue", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo", EchartsTheme #' "essos", "forest", "fresh-cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired", #' "jazz", "london", "dark", "macarons", "macarons2", "mint", "purple-passion", "redvelvet", "red", "roma", "royal", #' "sakura", "shine", "tech-blue", "vintage", "walden", "wef", "weforum", "west TextColor 'darkblue' title.fontSize 22 title.fontWeight "bold" title.textShadowColor '#63aeff' title.textShadowBlur title.textShadowOffsetY title.textShadowOffsetX -1 xaxis.fontSize 14 yaxis.fontSize 14

Debugging purposes

TRUE

0

xaxis.rotate

yaxis.rotate ContainLabel 58 Plot.Parallel

Value

plot

Author(s)

Adrian Antico

See Also

```
Other Standard Plots: Plot.ACF(), Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Box(), Plot.Copula3D(), Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.Donut(), Plot.HeatMap(), Plot.Histogram(), Plot.Line(), Plot.Parallel(), Plot.Pie(), Plot.ProbabilityPlot(), Plot.Radar(), Plot.River(), Plot.Rosetype(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step(), Plot.WordCloud()
```

Plot.Parallel

Plot.Parallel

Description

Build a parallel plot by simply passing arguments to a single function. It will sample your data using SampleSize number of rows. Sampled data is randomized.

```
Plot.Parallel(
  dt = NULL,
  SampleSize = 50000,
  CorrVars = NULL,
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  PreAgg = FALSE,
  Height = NULL,
  Width = NULL,
  Title = "Parallel Plot",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  MouseScroll = TRUE,
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
```

Plot.Parallel 59

```
title.textShadowOffsetX = -1,
  yaxis.fontSize = 14,
  xaxis.fontSize = 14,
  Debug = FALSE
)
```

Arguments

dt source data.table

SampleSize Sample size

CorrVars vector of variable names

FacetRows Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows

FacetCols Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns

FacetLevels Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.

PreAgg logical
Height "400px"
Width "200px"
Title character
ShowLabels character
Title.YAxis character
Title.XAxis character

EchartsTheme "auritus", "azul", "bee-inspired", "blue", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo", #' "essos", "forest", "fresh-cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired",

#' "jazz", "london", "dark", "macarons", "macarons2", "mint", "purple-passion", "red-

velvet", "red", "royal", #' "sakura", "shine", "tech-blue", "vintage", "walden", "wef", "weforum", "west

MouseScroll logical, zoom via mouse scroll

TextColor character hex

title.fontSize 22
title.fontWeight

"bold"

title.textShadowColor

'#63aeff'

title.textShadowBlur

3

title.textShadowOffsetY

1

title.textShadowOffsetX

-1

yaxis.fontSize 14

xaxis.fontSize 14

Debug

Debugging purposes

60 Plot.Parallel

Value

plot

Author(s)

Adrian Antico

See Also

```
Other Standard Plots: Plot.ACF(), Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Box(), Plot.Copula3D(), Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.Donut(), Plot.HeatMap(), Plot.Histogram(), Plot.Line(), Plot.PACF(), Plot.Pie(), Plot.ProbabilityPlot(), Plot.Radar(), Plot.River(), Plot.Rosetype(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step(), Plot.WordCloud()
```

Examples

```
# Create data
dt = AutoPlots::FakeDataGenerator(N = 100000)
# Create plot
AutoPlots::Plot.Parallel(
  dt = dt,
  SampleSize = 1000,
  CorrVars = c("Independent_Variable3",
               "Independent_Variable4",
               "Independent_Variable5",
               "Independent_Variable6",
               "Independent_Variable7"),
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  PreAgg = FALSE,
  Height = NULL,
  Width = NULL,
  Title = "Parallel Plot",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  MouseScroll = TRUE,
  TextColor = "black",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = '#63aeff',
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  yaxis.fontSize = 14,
  xaxis.fontSize = 14,
  Debug = FALSE)
```

```
Plot.PartialDependence.Box
```

Plot.Partial Dependence.Box

Description

This function automatically builds partial dependence calibration plots

Usage

```
Plot.PartialDependence.Box(
  dt = NULL,
  PreAgg = FALSE,
  SampleSize = 100000L,
  XVar = NULL,
  YVar = NULL,
  ZVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  ZVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  NumberBins = 20,
  AggMethod = "mean",
  Height = NULL,
 Width = NULL,
  Title = "Partial Dependence Box",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
 MouseScroll = TRUE,
  EchartsLabels = FALSE,
  TimeLine = TRUE,
  TextColor = "white",
  Debug = FALSE
)
```

Arguments

dt source data.table

PreAgg logical

SampleSize numeric

XVar X-Axis variable name

YVar Y-Axis variable name

ZVar character

GroupVar Character variable

YVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

ZVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

FacetRows Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a

numeric value for the number of output grid rows

FacetCols Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply

a numeric value for the number of output grid columns

FacetLevels Faceting rows x columns is the max number of levels allowed in a grid. If your

Group Var has more you can supply the levels to display.

NumberBins numeric
AggMethod character
Height "400px"
Width "200px"
Title character
ShowLabels character
Title.YAxis character

Title.XAxis character

#' "essos", "forest", "fresh-cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired",

#' "jazz", "london", "dark", "macarons", "macarons2", "mint", "purple-passion", "red-

velvet", "red", "roma", "royal", #' "sakura", "shine", "tech-blue", "vintage", "walden", "wef", "weforum", "west

MouseScroll logical, zoom via mouse scroll

EchartsLabels character
TimeLine logical

TextColor hex character

Debugging purposes

Value

plot

Author(s)

Adrian Antico

See Also

```
Other Model Evaluation: Plot.BinaryMetrics(), Plot.Calibration.Box(), Plot.Calibration.Line(), Plot.ConfusionMatrix(), Plot.Gains(), Plot.Lift(), Plot.PartialDependence.HeatMap(), Plot.PartialDependence.Line(), Plot.RoC(), Plot.Residuals.Histogram(), Plot.Residuals.Scatter(), Plot.ShapImportance(), Plot.VariableImportance()
```

```
Plot. Partial Dependence. Heat Map \\ Plot. Partial Dependence. Heat Map
```

Description

This function automatically builds partial dependence calibration plots

```
Plot.PartialDependence.HeatMap(
  dt = NULL,
  XVar = NULL
  YVar = NULL,
  ZVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  ZVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  NumberBins = 21,
  AggMethod = "mean",
 Height = NULL,
 Width = NULL,
  Title = "Partial Dependence Heatmap",
  ShowLabels = FALSE,
 MouseScroll = TRUE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  EchartsLabels = FALSE,
  TimeLine = TRUE,
  TextColor = "white",
  Debug = FALSE
)
```

Arguments

dt source data.table

XVar X-Axis variable name

YVar Y-Axis variable name

ZVar character

GroupVar Character variable

YVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

ZVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

FacetRows Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a

numeric value for the number of output grid rows

FacetCols Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply

a numeric value for the number of output grid columns

FacetLevels Faceting rows x columns is the max number of levels allowed in a grid. If your

GroupVar has more you can supply the levels to display.

NumberBins numeric
AggMethod character
Height "400px"
Width "200px"
Title character
ShowLabels character

MouseScroll logical, zoom via mouse scroll

Title.YAxis character
Title.XAxis character

EchartsTheme "auritus", "azul", "bee-inspired", "blue", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo",

#' "essos", "forest", "fresh-cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired",

#' "jazz", "london", "dark", "macarons", "macarons2", "mint", "purple-passion", "red-

velvet", "red", "royal", #' "sakura", "shine", "tech-blue", "vintage", "walden", "wef", "weforum", "wes

EchartsLabels character

TextColor hex character

Debugging purposes

logical

Value

plot

TimeLine

Author(s)

Adrian Antico

See Also

```
Other Model Evaluation: Plot.BinaryMetrics(), Plot.Calibration.Box(), Plot.Calibration.Line(), Plot.ConfusionMatrix(), Plot.Gains(), Plot.Lift(), Plot.PartialDependence.Box(), Plot.PartialDependence Plot.ROC(), Plot.Residuals.Histogram(), Plot.Residuals.Scatter(), Plot.ShapImportance(), Plot.VariableImportance()
```

```
Plot.PartialDependence.Line
```

Plot.PartialDependence.Line

Description

This function automatically builds partial dependence calibration plots

```
Plot.PartialDependence.Line(
  dt = NULL,
  XVar = NULL
  YVar = NULL,
  ZVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  ZVarTrans = "Identity",
 FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  GroupVar = NULL,
 NumberBins = 20,
  AggMethod = "mean",
 Height = NULL,
 Width = NULL,
  Title = "Partial Dependence Line",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
 MouseScroll = TRUE,
 EchartsLabels = FALSE,
  TimeLine = TRUE,
  TextColor = "white",
  Debug = FALSE
)
```

Arguments

dt source data.table

XVar X-Axis variable name

YVar Y-Axis variable name

ZVar character

YVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

ZVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

FacetRows Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a

numeric value for the number of output grid rows

FacetCols Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply

a numeric value for the number of output grid columns

FacetLevels Faceting rows x columns is the max number of levels allowed in a grid. If your

GroupVar has more you can supply the levels to display.

GroupVar Character variable

NumberBins numeric AggMethod character "400px" Height Width "200px" Title character ShowLabels character Title.YAxis character Title.XAxis character

EchartsTheme "auritus", "azul", "bee-inspired", "blue", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo",

"" "essos", "forest", "fresh-cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired",

#" "jazz", "london", "dark", "macarons", "macarons2", "mint", "purple-passion", "red-

velvet", "red", "roma", "royal", #' "sakura", "shine", "tech-blue", "vintage", "walden", "wef", "weforum", "west

MouseScroll logical, zoom via mouse scroll

EchartsLabels character
TimeLine logical

TextColor hex character

Debugging purposes

Value

plot

Plot.Pie 67

Author(s)

Adrian Antico

See Also

```
Other Model Evaluation: Plot.BinaryMetrics(), Plot.Calibration.Box(), Plot.Calibration.Line(), Plot.ConfusionMatrix(), Plot.Gains(), Plot.Lift(), Plot.PartialDependence.Box(), Plot.PartialDependence Plot.ROC(), Plot.Residuals.Histogram(), Plot.Residuals.Scatter(), Plot.ShapImportance(), Plot.VariableImportance()
```

Plot.Pie

Plot.Pie

Description

Build a pie chart by simply passing arguments to a single function

```
Plot.Pie(
  dt = NULL,
  PreAgg = FALSE,
  XVar = NULL,
  YVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  AggMethod = "mean",
 Height = NULL,
 Width = NULL,
  Title = "Pie Chart",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  TimeLine = TRUE,
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  xaxis.fontSize = 14,
```

68 Plot.Pie

```
yaxis.fontSize = 14,
Debug = FALSE
)
```

Arguments

dt source data.table

PreAgg logical

XVar X-Axis variable name
YVar Y-Axis variable name

GroupVar Column name of Group Variable for distinct colored histograms by group levels

YVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

FacetRows Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a

numeric value for the number of output grid rows

FacetCols Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply

a numeric value for the number of output grid columns

FacetLevels Faceting rows x columns is the max number of levels allowed in a grid. If your

GroupVar has more you can supply the levels to display.

AggMethod Choose from 'mean', 'sum', 'sd', and 'median'

Height "400px"
Width "200px"
Title title
ShowLabels character
Title.YAxis character

Title.XAxis character

TITLE. AAXIS CHARACTER

EchartsTheme "auritus", "azul", "bee-inspired", "blue", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo", "ess cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired", "jazz", "london", "dark", "maximus dark", "maximus dark", "maximus dark", "maximus dark", "maximus dark", "azul", "bee-inspired", "blue", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo", "ess cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired", "jazz", "london", "dark", "maximus dark", "maximus dark", "cool", "dark", "eduardo", "ess cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired", "jazz", "london", "dark", "maximus dark", "max

passion", "red-velvet", "red", "roma", "royal", "sakura", "shine", "tech-blue", "vintage", "walden", "wef", "wefc

TimeLine logical
TextColor 'darkblue'

title.fontSize 22
title.fontWeight

"bold"

title.textShadowColor

'#63aeff'

title.textShadowBlur

3

title.textShadowOffsetY

1

Plot.Pie 69

```
title.textShadowOffsetX
-1
xaxis.fontSize 14
yaxis.fontSize 14
Debug Debugging purposes
```

Value

plot

Author(s)

Adrian Antico

See Also

```
Other Standard Plots: Plot.ACF(), Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Box(), Plot.Copula3D(), Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.Donut(), Plot.HeatMap(), Plot.Histogram(), Plot.Line(), Plot.PACF(), Plot.Parallel(), Plot.ProbabilityPlot(), Plot.Radar(), Plot.River(), Plot.Rosetype(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step(), Plot.WordCloud()
```

Examples

```
# Create fake data
dt <- data.table::data.table(Y = qnorm(p = runif(10000)), GV = sample(LETTERS, 1000, TRUE))
# Create plot
AutoPlots::Plot.Pie(
  dt = dt,
  PreAgg = FALSE,
  XVar = "GV",
  YVar = "Y",
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  AggMethod = 'mean',
  Height = NULL,
  Width = NULL,
  Title = 'Pie Chart',
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  TimeLine = TRUE,
  TextColor = "black",
  title.fontSize = 22,
  title.fontWeight = "bold",
```

70 Plot.ProbabilityPlot

```
title.textShadowColor = '#63aeff',
title.textShadowBlur = 3,
title.textShadowOffsetY = 1,
title.textShadowOffsetX = -1,
xaxis.fontSize = 14,
yaxis.fontSize = 14,
Debug = FALSE)
```

Plot.ProbabilityPlot Plot.ProbabilityPlot

Description

Build a normal probability plot

Usage

```
Plot.ProbabilityPlot(
  dt = NULL,
  SampleSize = 1000L,
  YVar = NULL,
  YVarTrans = "Identity",
 Height = NULL,
 Width = NULL,
  Title = "Normal Probability Plot",
  ShowLabels = FALSE,
  EchartsTheme = "macarons",
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  yaxis.fontSize = 14,
  yaxis.rotate = 0,
  ContainLabel = TRUE,
  tooltip.trigger = "axis",
  Debug = FALSE
)
```

Arguments

dt source data.table

SampleSize An integer for the number of rows to use. Sampled data is randomized. If NULL

then ignored

Plot.ProbabilityPlot 71

YVar Y-Axis variable name

YVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

Height "400px"
Width "200px"
Title 'Violin Plot'
ShowLabels character
EchartsTheme "macaron"
TextColor 'darkblue'
title.fontSize Default 22
title.fontWeight

Default "bold"

title.textShadowColor

Default '#63aeff'

title.textShadowBlur

Default 3

title.textShadowOffsetY

Default 1

title.textShadowOffsetX

Default -1

yaxis.fontSize Default 14 yaxis.rotate Default 0

ContainLabel Default TRUE

tooltip.trigger

Default "axis"

Debug Debugging purposes

Value

plot

Author(s)

Adrian Antico

See Also

```
Other Standard Plots: Plot.ACF(), Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Box(), Plot.Copula3D(), Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.Donut(), Plot.HeatMap(), Plot.Histogram(), Plot.Line(), Plot.PACF(), Plot.Parallel(), Plot.Pie(), Plot.Radar(), Plot.River(), Plot.Rosetype(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step(), Plot.WordCloud()
```

72 Plot.Radar

Examples

```
# Create fake data
dt <- data.table::data.table(Y = qnorm(p = runif(10000)))</pre>
# Create plot
AutoPlots::Plot.ProbabilityPlot(
  dt = dt,
  SampleSize = 1000L,
  YVar = "Y",
  YVarTrans = "Identity",
  Height = NULL,
  Width = NULL,
  Title = 'Normal Probability Plot',
  ShowLabels = FALSE,
  EchartsTheme = "blue",
  TextColor = "black",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = '#63aeff',
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  yaxis.fontSize = 14,
  yaxis.rotate = 0,
  ContainLabel = TRUE,
  tooltip.trigger = "axis",
  Debug = FALSE)
```

Plot.Radar

Plot.Radar

Description

Plot.Radar

```
Plot.Radar(
  dt = NULL,
  AggMethod = "mean",
  PreAgg = TRUE,
  YVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  Height = NULL,
  Width = NULL,
  Title = "Radar Plot",
  ShowLabels = FALSE,
```

Plot.Radar 73

```
EchartsTheme = "macarons",
      ShowSymbol = FALSE,
      TextColor = "white",
      title.fontSize = 22,
      title.fontWeight = "bold",
      title.textShadowColor = "#63aeff",
      title.textShadowBlur = 3,
      title.textShadowOffsetY = 1,
      title.textShadowOffsetX = -1,
      ContainLabel = TRUE,
     DarkMode = FALSE,
      Debug = FALSE
   )
Arguments
   dt
                    source data.table
   AggMethod
                    character
   PreAgg
                    logical
   YVar
                    Y-Axis variable name. You can supply multiple YVars
   GroupVar
                    One Grouping Variable
                    "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-
   YVarTrans
                    ize", "BoxCox", "YeoJohnson"
   Height
                    "400px"
   Width
                    "200px"
   Title
                    "Title"
   ShowLabels
                    character
   EchartsTheme
                    Provide an "Echarts" theme
   ShowSymbol 
                    = FALSE
   TextColor
                    "Not Implemented"
   title.fontSize 22
    title.fontWeight
                    "bold"
    title.textShadowColor
                    '#63aeff'
   title.textShadowBlur
   title.textShadowOffsetY
    title.textShadowOffsetX
                    -1
                    TRUE
   ContainLabel
   DarkMode
                    FALSE
```

Debug

Debugging purposes

74 Plot.Radar

Value

plot

Author(s)

Adrian Antico

See Also

```
Other Standard Plots: Plot.ACF(), Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Box(), Plot.Copula3D(), Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.Donut(), Plot.HeatMap(), Plot.Histogram(), Plot.Line(), Plot.PACF(), Plot.Parallel(), Plot.Pie(), Plot.ProbabilityPlot(), Plot.River(), Plot.Rosetype(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step(), Plot.WordCloud()
```

Examples

```
# Create Data
dt <- data.table::data.table(Y = pnorm(q = runif(8)), GV = sample(LETTERS[1:4], 8, TRUE))</pre>
# Create plot
AutoPlots::Plot.Radar(
 dt = dt,
 AggMethod = "mean",
 PreAgg = FALSE,
 YVar = "Y",
 GroupVar = "GV",
 YVarTrans = "Identity",
 Height = NULL,
 Width = NULL,
 Title = 'Radar Plot',
 ShowLabels = FALSE,
 EchartsTheme = "macarons",
 ShowSymbol = FALSE,
 TextColor = "black",
 title.fontSize = 22,
 title.fontWeight = "bold",
 title.textShadowColor = '#63aeff',
 title.textShadowBlur = 3,
 title.textShadowOffsetY = 1,
 title.textShadowOffsetX = -1,
 ContainLabel = TRUE,
 DarkMode = FALSE,
 Debug = FALSE)
```

Plot.Residuals.Histogram

Plot.Residuals.Histogram

Description

Residuals Plot

```
Plot.Residuals.Histogram(
  dt = NULL,
  AggMethod = "mean",
  SampleSize = 1e+05,
  XVar = NULL,
  YVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  NumberBins = 20,
  Height = NULL,
  Width = NULL,
  Title = "Residuals Histogram",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = "Target - Predicted",
  EchartsTheme = "macarons",
 MouseScroll = TRUE,
  TimeLine = FALSE,
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  xaxis.fontSize = 14,
  yaxis.fontSize = 14,
  xaxis.rotate = 0,
  yaxis.rotate = 0,
  ContainLabel = TRUE,
  Debug = FALSE
)
```

Arguments

dt source data.table

AggMethod character SampleSize numeric

XVar X-Axis variable name
YVar Y-Axis variable name
GroupVar Character variable

YVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

FacetRows Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a

numeric value for the number of output grid rows

FacetCols Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply

a numeric value for the number of output grid columns

FacetLevels Faceting rows x columns is the max number of levels allowed in a grid. If your

GroupVar has more you can supply the levels to display.

NumberBins numeric
Height "400px"
Width "200px"
Title character
ShowLabels character
Title.YAxis character
Title.XAxis character

EchartsTheme "auritus", "azul", "bee-inspired", "blue", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo",

"," "essos", "forest", "fresh-cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired",

#' "jazz", "london", "dark", "macarons", "macarons2", "mint", "purple-passion", "red-

velvet", "red", "roma", "royal", #' "sakura", "shine", "tech-blue", "vintage", "walden", "wef", "weforum", "west

MouseScroll logical, zoom via mouse scroll

TimeLine logical

TextColor Not Implemented

title.fontSize 22
title.fontWeight

"bold"

title.textShadowColor

'#63aeff'

title.textShadowBlur

3

 ${\tt title.textShadowOffsetY}$

1

Plot.Residuals.Scatter 77

```
title.textShadowOffsetX
-1

xaxis.fontSize 14

yaxis.fontSize 14

xaxis.rotate 0

yaxis.rotate 0

ContainLabel TRUE

Debug Debugging purposes
```

Value

plot

Author(s)

Adrian Antico

See Also

```
Other Model Evaluation: Plot.BinaryMetrics(), Plot.Calibration.Box(), Plot.Calibration.Line(), Plot.ConfusionMatrix(), Plot.Gains(), Plot.Lift(), Plot.PartialDependence.Box(), Plot.PartialDependence Plot.PartialDependence.Line(), Plot.RoC(), Plot.Residuals.Scatter(), Plot.ShapImportance(), Plot.VariableImportance()
```

Plot.Residuals.Scatter

Plot.Residuals.Scatter

Description

Residuals_2 Plot

```
Plot.Residuals.Scatter(
dt = NULL,
AggMethod = "mean",
SampleSize = 1e+05,
XVar = NULL,
YVar = NULL,
GroupVar = NULL,
YVarTrans = "Identity",
XVarTrans = "Identity",
FacetRows = 1,
FacetCols = 1,
FacetLevels = NULL,
```

78 Plot.Residuals.Scatter

```
Height = NULL,
Width = NULL,
MouseScroll = TRUE,
Title = "Residual Scatterplot",
ShowLabels = FALSE,
Title.YAxis = "Target - Predicted",
Title.XAxis = "Predicted",
EchartsTheme = "macarons",
TimeLine = FALSE,
TextColor = "white",
Debug = FALSE
)
```

Arguments

dt source data.table

AggMethod character SampleSize numeric

XVar X-Axis variable name
YVar Y-Axis variable name
GroupVar Character variable

YVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

FacetRows Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a

numeric value for the number of output grid rows

FacetCols Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply

a numeric value for the number of output grid columns

FacetLevels Faceting rows x columns is the max number of levels allowed in a grid. If your

GroupVar has more you can supply the levels to display.

Height "400px" Width "200px"

MouseScroll logical, zoom via mouse scroll

Title character
ShowLabels character
Title.YAxis character
Title.XAxis character

EchartsTheme "auritus", "azul", "bee-inspired", "blue", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo",

#' "essos", "forest", "fresh-cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired",

#' "jazz", "london", "dark", "macarons", "macarons2", "mint", "purple-passion", "red-

velvet", "red", "roma", "royal", #' "sakura", "shine", "tech-blue", "vintage", "walden", "wef", "weforum", "west

TimeLine logical

TextColor "Not Implemented"
Debug Debugging purposes

Plot.River 79

Value

plot

Author(s)

Adrian Antico

See Also

```
Other Model Evaluation: Plot.BinaryMetrics(), Plot.Calibration.Box(), Plot.Calibration.Line(), Plot.ConfusionMatrix(), Plot.Gains(), Plot.Lift(), Plot.PartialDependence.Box(), Plot.PartialDependence Plot.PartialDependence.Line(), Plot.RoC(), Plot.Residuals.Histogram(), Plot.ShapImportance(), Plot.VariableImportance()
```

Plot.River

Plot.River

Description

This function automatically builds calibration plots and calibration boxplots for model evaluation using regression, quantile regression, and binary and multinomial classification

```
Plot.River(
  dt = NULL,
  AggMethod = "mean",
  PreAgg = TRUE,
  XVar = NULL,
  YVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  Height = NULL,
  Width = NULL,
  Title = "River Plot",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  MouseScroll = TRUE,
  TimeLine = TRUE,
  ShowSymbol = FALSE,
  TextColor = "white",
```

80 Plot.River

```
title.fontSize = 22,
title.fontWeight = "bold",
title.textShadowColor = "#63aeff",
title.textShadowBlur = 3,
title.textShadowOffsetY = 1,
title.textShadowOffsetX = -1,
xaxis.fontSize = 14,
yaxis.fontSize = 14,
Debug = FALSE
)
```

Arguments

dt source data.table

AggMethod character
PreAgg logical

XVar X-Axis variable name

YVar Y-Axis variable name. You can supply multiple YVars

GroupVar One Grouping Variable

YVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

FacetRows Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a

numeric value for the number of output grid rows

FacetCols Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply

a numeric value for the number of output grid columns

FacetLevels Faceting rows x columns is the max number of levels allowed in a grid. If your

GroupVar has more you can supply the levels to display.

Height "400px"
Width "200px"
Title "Title"
ShowLabels character
Title.YAxis character
Title.XAxis character

EchartsTheme Provide an "Echarts" theme

MouseScroll logical, zoom via mouse scroll

TimeLine Logical ShowSymbol = FALSE

TextColor "Not Implemented"

title.fontSize 22

Plot.River 81

```
title.fontWeight

"bold"

title.textShadowColor

'#63aeff'

title.textShadowBlur

3

title.textShadowOffsetY

1

title.textShadowOffsetX

-1

xaxis.fontSize 14

yaxis.fontSize 14

Debug Debugging purposes
```

Value

plot

Author(s)

Adrian Antico

See Also

```
Other Standard Plots: Plot.ACF(), Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Box(), Plot.Copula3D(), Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.Donut(), Plot.HeatMap(), Plot.Histogram(), Plot.Line(), Plot.PACF(), Plot.Parallel(), Plot.Pie(), Plot.ProbabilityPlot(), Plot.Radar(), Plot.Rosetype(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step(), Plot.WordCloud()
```

Examples

```
# Create fake data
data <- AutoPlots::FakeDataGenerator(N = 1000)</pre>
# Build plot
AutoPlots::Plot.River(
  dt = data,
  PreAgg = FALSE,
  AggMethod = "mean",
  XVar = "DateTime",
  YVar = c(
    "Independent_Variable1",
    "Independent_Variable2",
    "Independent_Variable3",
    "Independent_Variable4",
    "Independent_Variable5"),
  YVarTrans = "Identity",
  TextColor = "black",
  EchartsTheme = "macarons")
```

82 Plot.ROC

Plot.ROC

Plot.ROC

Description

ROC Plot

Usage

```
Plot.ROC(
  dt = NULL,
  SampleSize = 1e+05,
 XVar = NULL,
  YVar = NULL,
 GroupVar = NULL,
  YVarTrans = "Identity",
 XVarTrans = "Identity",
 FacetRows = 1,
 FacetCols = 1,
  FacetLevels = NULL,
  AggMethod = "mean",
 Height = NULL,
 Width = NULL,
 Title = "ROC Plot",
  ShowLabels = FALSE,
 Title.YAxis = "True Positive Rate",
 Title.XAxis = "1 - False Positive Rate",
 EchartsTheme = "macarons",
 MouseScroll = TRUE,
 TimeLine = FALSE,
 TextColor = "white",
 Debug = FALSE
)
```

Arguments

dt	source data.table
SampleSize	numeric
XVar	X-Axis variable name
YVar	Y-Axis variable name
GroupVar	Character variable
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
XVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"

Plot.ROC 83

FacetRows Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a

numeric value for the number of output grid rows

FacetCols Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply

a numeric value for the number of output grid columns

FacetLevels Faceting rows x columns is the max number of levels allowed in a grid. If your

GroupVar has more you can supply the levels to display.

AggMethod character

Height "400px"

Width "200px"

Title character

ShowLabels

Title.YAxis character

Title.XAxis character

EchartsTheme "auritus", "azul", "bee-inspired", "blue", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo",

#' "essos", "forest", "fresh-cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired",

#' "jazz","london","dark","macarons","macarons2","mint","purple-passion","red-

velvet", "red", "roma", "royal", #' "sakura", "shine", "tech-blue", "vintage", "walden", "wef", "weforum", "west

MouseScroll logical, zoom via mouse scroll

character

TimeLine logical

TextColor character hex

Debugging purposes

Value

plot

Author(s)

Adrian Antico

See Also

```
Other Model Evaluation: Plot.BinaryMetrics(), Plot.Calibration.Box(), Plot.Calibration.Line(), Plot.ConfusionMatrix(), Plot.Gains(), Plot.Lift(), Plot.PartialDependence.Box(), Plot.PartialDependence Plot.PartialDependence.Line(), Plot.Residuals.Histogram(), Plot.Residuals.Scatter(), Plot.ShapImportance(), Plot.VariableImportance()
```

84 Plot.Rosetype

Plot.Rosetype

Plot.Rosetype

Description

Build a donut plot by simply passing arguments to a single function

Usage

```
Plot.Rosetype(
  dt = NULL,
  PreAgg = FALSE,
 XVar = NULL,
  YVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  AggMethod = "mean",
 Height = NULL,
 Width = NULL,
 Title = "Donut Plot",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
 EchartsTheme = "macarons",
  TimeLine = TRUE,
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  xaxis.fontSize = 14,
  yaxis.fontSize = 14,
  Debug = FALSE
)
```

Arguments

dt source data.table
PreAgg logical

XVar X-Axis variable name

Plot.Rosetype 85

YVar Y-Axis variable name Column name of Group Variable for distinct colored histograms by group levels GroupVar "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-YVarTrans ize", "BoxCox", "YeoJohnson" **XVarTrans** "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" FacetRows Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows FacetCols Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns FacetLevels Faceting rows x columns is the max number of levels allowed in a grid. If your Group Var has more you can supply the levels to display. Choose from 'mean', 'sum', 'sd', and 'median' AggMethod Height "400px" Width "200px" Title title ShowLabels character Title.YAxis character Title.XAxis character EchartsTheme "auritus", "azul", "bee-inspired", "blue", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo", "ess cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired", "jazz", "london", "dark", "ma passion", "red-velvet", "red", "roma", "royal", "sakura", "shine", "tech-blue", "vintage", "walden", "wef", "wefc TimeLine logical TextColor 'darkblue' title.fontSize Defaults to size 22. Numeric. This changes the size of the title. title.fontWeight "bold" title.textShadowColor '#63aeff' title.textShadowBlur title.textShadowOffsetY title.textShadowOffsetX -1 xaxis.fontSize 14 yaxis.fontSize 14 Debug Debugging purposes

Value

plot

86 Plot.Rosetype

Author(s)

Adrian Antico

See Also

```
Other Standard Plots: Plot.ACF(), Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Box(), Plot.Copula3D(), Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.Donut(), Plot.HeatMap(), Plot.Histogram(), Plot.Line(), Plot.PACF(), Plot.Parallel(), Plot.Pie(), Plot.ProbabilityPlot(), Plot.Radar(), Plot.River(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step(), Plot.WordCloud()
```

Examples

```
# Create fake data
dt <- data.table::data.table(Y = qnorm(p = runif(10000)), GV = sample(LETTERS, 1000, TRUE))</pre>
# Create plot
AutoPlots::Plot.Rosetype(
  dt = dt,
  PreAgg = FALSE,
  XVar = "GV",
  YVar = "Y",
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  AggMethod = 'mean',
  Height = NULL,
  Width = NULL,
  Title = 'Pie Chart',
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  TimeLine = TRUE,
  TextColor = "black",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = '#63aeff',
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  xaxis.fontSize = 14,
  yaxis.fontSize = 14,
  Debug = FALSE)
```

Plot.Scatter 87

Plot.Scatter

Plot.Scatter

Description

Build a copula plot by simply passing arguments to a single function. It will sample your data using SampleSize number of rows. Sampled data is randomized.

```
Plot.Scatter(
  dt = NULL,
  SampleSize = 30000L,
  XVar = NULL,
  YVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  Height = NULL,
 Width = NULL,
  Title = "Scatter Plot",
  ShowLabels = FALSE,
  AddGLM = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
 MouseScroll = TRUE,
  TimeLine = FALSE,
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  yaxis.fontSize = 14,
  xaxis.fontSize = 14,
  xaxis.rotate = 0,
  yaxis.rotate = 0,
  ContainLabel = TRUE,
  tooltip.trigger = "axis",
  Debug = FALSE
)
```

88 Plot.Scatter

Arguments

dt source data.table SampleSize numeric XVar X-Axis variable name Y-Axis variable name YVar GroupVar Character variable YVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson" "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-**XVarTrans** ize", "BoxCox", "YeoJohnson" FacetRows Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows FacetCols Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns FacetLevels Faceting rows x columns is the max number of levels allowed in a grid. If your Group Var has more you can supply the levels to display. "400px" Height "200px" Width Title character ShowLabels character AddGLM logical Title.YAxis character Title.XAxis character **EchartsTheme** "auritus","azul","bee-inspired","blue","caravan","carp","chalk","cool","dark-bold","dark","eduardo", "" "essos", "forest", "fresh-cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired", #' "jazz", "london", "dark", "macarons", "macarons2", "mint", "purple-passion", "redvelvet", "red", "roma", "royal", #' "sakura", "shine", "tech-blue", "vintage", "walden", "wef", "weforum", "west MouseScroll logical, zoom via mouse scroll TimeLine logical TextColor character hex title.fontSize 22 title.fontWeight "bold" title.textShadowColor '#63aeff'

title.textShadowBlur

title.textShadowOffsetY

+ - - - + Cl- - - - l - - - O C C

title.textShadowOffsetX

-1

Plot.Scatter 89

```
yaxis.fontSize 14

xaxis.fontSize 14

xaxis.rotate 0

yaxis.rotate 0

ContainLabel TRUE

tooltip.trigger

"axis"

Debug Debugging purposes
```

Value

plot

Author(s)

Adrian Antico

See Also

```
Other Standard Plots: Plot.ACF(), Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Box(), Plot.Copula3D(), Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.Donut(), Plot.HeatMap(), Plot.Histogram(), Plot.Line(), Plot.PACF(), Plot.Parallel(), Plot.Pie(), Plot.ProbabilityPlot(), Plot.Radar(), Plot.River(), Plot.Rosetype(), Plot.Scatter3D(), Plot.StackedBar(), Plot.Step(), Plot.WordCloud()
```

Examples

```
# Create fake data
data <- AutoPlots::FakeDataGenerator(N = 100000)</pre>
data[, Independent_Variable8 := Independent_Variable8 * runif(.N)]
# Echarts Scatter Plot Chart
AutoPlots::Plot.Scatter(
 dt = data,
 SampleSize = 10000,
 XVar = "Independent_Variable10",
 YVar = "Independent_Variable8",
 GroupVar = NULL,
 YVarTrans = "Identity",
 XVarTrans = "Identity",
 FacetRows = 1,
 FacetCols = 1,
 FacetLevels = NULL,
 Height = NULL,
 Width = NULL,
 Title = 'Scatter Plot',
 ShowLabels = FALSE,
 AddGLM = FALSE,
 Title.YAxis = NULL,
 Title.XAxis = NULL,
```

90 Plot.Scatter3D

```
EchartsTheme = "blue",
MouseScroll = TRUE,
TimeLine = FALSE,
TextColor = "black",
title.fontSize = 22,
title.fontWeight = "bold",
title.textShadowColor = '#63aeff',
title.textShadowBlur = 3,
title.textShadowOffsetY = 1,
title.textShadowOffsetX = -1,
yaxis.fontSize = 14,
xaxis.fontSize = 14,
xaxis.rotate = 0,
yaxis.rotate = 0,
ContainLabel = TRUE,
tooltip.trigger = "axis",
Debug = FALSE)
```

Plot.Scatter3D

Plot.Scatter3D

Description

Build a 3D-copula plot by simply passing arguments to a single function. It will sample your data using SampleSize number of rows. Sampled data is randomized.

```
Plot.Scatter3D(
  dt = NULL,
  SampleSize = 1e+05,
  XVar = NULL.
  YVar = NULL,
  ZVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  ZVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  Height = NULL,
 Width = NULL,
  Title = "3D Scatter",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
```

Plot.Scatter3D 91

```
TimeLine = FALSE,
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  yaxis.fontSize = 14,
  xaxis.fontSize = 14,
  zaxis.fontSize = 14,
  xaxis.rotate = 0,
 yaxis.rotate = 0,
  zaxis.rotate = 0,
 ContainLabel = TRUE,
 Debug = FALSE
)
```

Arguments

at	source data.table

SampleSize An integer for the number of rows to use. Sampled data is randomized. If NULL

then ignored

XVar X-Axis variable name
YVar Y-Axis variable name
ZVar Z-Axis variable name

GroupVar Requires an XVar and YVar already be defined

YVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

ZVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

FacetRows Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a

numeric value for the number of output grid rows

FacetCols Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply

a numeric value for the number of output grid columns

FacetLevels Faceting rows x columns is the max number of levels allowed in a grid. If your

GroupVar has more you can supply the levels to display.

Height "400px"
Width "200px"
Title 'Violin Plot'
ShowLabels character
Title.YAxis character

92 Plot.Scatter3D

```
Title.XAxis
                character
EchartsTheme
                = "macaron"
TimeLine
                Logical
TextColor
                'darkblue'
title.fontSize 22
title.fontWeight
                "bold"
title.textShadowColor
                '#63aeff'
title.textShadowBlur
title.textShadowOffsetY
title.textShadowOffsetX
                -1
yaxis.fontSize 14
xaxis.fontSize 14
zaxis.fontSize 14
                0
xaxis.rotate
yaxis.rotate
zaxis.rotate
ContainLabel
                TRUE
Debug
                Debugging purposes
```

Value

plot

Author(s)

Adrian Antico

See Also

```
Other Standard Plots: Plot.ACF(), Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Box(), Plot.Copula3D(), Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.Donut(), Plot.HeatMap(), Plot.Histogram(), Plot.Line(), Plot.PACF(), Plot.Parallel(), Plot.Pie(), Plot.ProbabilityPlot(), Plot.Radar(), Plot.River(), Plot.Rosetype(), Plot.Scatter(), Plot.StackedBar(), Plot.Step(), Plot.WordCloud()
```

Plot.ShapImportance 93

Examples

```
# Create fake data
data <- AutoPlots::FakeDataGenerator(N = 100000)</pre>
data[, Independent_Variable9 := Independent_Variable9 * runif(.N)]
# Echarts Copula Plot Chart
AutoPlots::Plot.Scatter3D(
 dt = data,
 SampleSize = 10000,
 XVar = "Adrian",
 YVar = "Independent_Variable9",
 ZVar = "Independent_Variable6",
 YVarTrans = "Identity",
 XVarTrans = "Identity",
 ZVarTrans = "Identity",
 FacetRows = 1,
 FacetCols = 1,
 FacetLevels = NULL,
 GroupVar = NULL,
 Height = NULL,
 Width = NULL,
 Title = 'Copula 3D',
 ShowLabels = FALSE,
 Title.YAxis = NULL,
 Title.XAxis = NULL,
 EchartsTheme = "macarons",
 TimeLine = FALSE,
 TextColor = "black",
 title.fontSize = 22,
 title.fontWeight = "bold",
 title.textShadowColor = '#63aeff',
 title.textShadowBlur = 3,
 title.textShadowOffsetY = 1,
 title.textShadowOffsetX = -1,
 yaxis.fontSize = 14,
 xaxis.fontSize = 14,
 zaxis.fontSize = 14,
 xaxis.rotate = 0,
 yaxis.rotate = 0,
 zaxis.rotate = 0,
 ContainLabel = TRUE,
 Debug = FALSE)
```

Plot.ShapImportance

Plot.ShapImportance

Description

Plot.ShapImportance variable importance

94 Plot.ShapImportance

Usage

```
Plot.ShapImportance(
  dt,
 PreAgg = FALSE,
  AggMethod = "meanabs",
  YVar = NULL,
 GroupVar = NULL,
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
 NumberBins = 21,
 NumLevels_X = 33,
 NumLevels_Y = 33,
 Height = NULL,
 Width = NULL,
 Title = "Shap Importance",
  ShowLabels = FALSE,
 Title.YAxis = NULL,
 Title.XAxis = NULL,
 EchartsTheme = "dark",
  TextColor = "white",
  Debug = FALSE
```

Arguments dt

Width

Title

"200px"

"Heatmap"

dt	source data.table
PreAgg	logical
AggMethod	"mean", "median", "sum", "sd", "skewness", "kurtosis", "coeffvar", "meanabs", "medianabs", "sumabs", "sdabs", "skewnessabs", "kurtosisabs", "CoeffVarabs"
YVar	Names of shap columns
GroupVar	Name of by variable
FacetRows	Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a numeric value for the number of output grid rows
FacetCols	Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply a numeric value for the number of output grid columns
FacetLevels	Faceting rows x columns is the max number of levels allowed in a grid. If your GroupVar has more you can supply the levels to display.
NumberBins	= 21
NumLevels_X	= 20
NumLevels_Y	= 20
Height	"400px"

Plot.StackedBar 95

```
ShowLabels character
Title.YAxis character
Title.XAxis character
EchartsTheme "dark-blue"
TextColor character
Debug = FALSE
```

Value

plot

Author(s)

Adrian Antico

See Also

```
Other Model Evaluation: Plot.BinaryMetrics(), Plot.Calibration.Box(), Plot.Calibration.Line(), Plot.ConfusionMatrix(), Plot.Gains(), Plot.Lift(), Plot.PartialDependence.Box(), Plot.PartialDependence Plot.PartialDependence.Line(), Plot.Roc(), Plot.Residuals.Histogram(), Plot.Residuals.Scatter(), Plot.VariableImportance()
```

Plot.StackedBar

Plot.StackedBar

Description

Build a stacked bar plot vs a grouped bar plot

```
Plot.StackedBar(
dt = NULL,
PreAgg = FALSE,
XVar = NULL,
YVar = NULL,
GroupVar = NULL,
YVarTrans = "Identity",
XVarTrans = "Identity",
FacetRows = 1,
FacetCols = 1,
FacetLevels = NULL,
AggMethod = "mean",
Height = NULL,
Width = NULL,
Title = "Stacked Bar",
```

96 Plot.StackedBar

```
Title.YAxis = NULL,
Title.XAxis = NULL,
ShowLabels = FALSE,
EchartsTheme = "macarons",
MouseScroll = TRUE,
TimeLine = TRUE,
TextColor = "white",
title.fontSize = 22,
title.fontWeight = "bold",
title.textShadowColor = "#63aeff",
title.textShadowBlur = 3,
title.textShadowOffsetY = 1,
title.textShadowOffsetX = -1,
yaxis.fontSize = 14,
xaxis.fontSize = 14,
xaxis.rotate = 0,
yaxis.rotate = 0,
ContainLabel = TRUE,
Debug = FALSE
```

Arguments

dt source data.table

PreAgg logical

XVar X-Axis variable name
YVar Y-Axis variable name

GroupVar Column name of Group Variable for distinct colored histograms by group levels

YVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

FacetRows Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a

numeric value for the number of output grid rows

FacetCols Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply

a numeric value for the number of output grid columns

FacetLevels Faceting rows x columns is the max number of levels allowed in a grid. If your

Group Var has more you can supply the levels to display.

AggMethod Choose from 'mean', 'sum', 'sd', and 'median'

Height NULL
Width NULL
Title title

Title.YAxis NULL. If NULL, YVar name will be used

Title.XAxis NULL. If NULL, XVar name will be used

Plot.StackedBar 97

```
EchartsTheme
                       "auritus", "azul", "bee-inspired", "blue", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo",
                       #' "essos", "forest", "fresh-cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired",
                      #" "jazz", "london", "dark", "macarons", "macarons2", "mint", "purple-passion", "red-
                       velvet", "red", "roma", "royal", #' "sakura", "shine", "tech-blue", "vintage", "walden", "wef", "weforum", "west
    MouseScroll
                      logical, zoom via mouse scroll
                       logical
    TimeLine
    TextColor
                       'darkblue'
    title.fontSize 22
    title.fontWeight
                       "bold"
    title.textShadowColor
                       '#63aeff'
    title.textShadowBlur
    title.textShadowOffsetY
    title.textShadowOffsetX
                       -1
    yaxis.fontSize 14
    xaxis.fontSize 14
                       0
    xaxis.rotate
    vaxis.rotate
                      0
    ContainLabel
                      TRUE
    Debug
                      Debugging purposes
Value
    plot
Author(s)
```

See Also

Adrian Antico

ShowLabels

logical

```
Other Standard Plots: Plot.ACF(), Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Box(), Plot.Copula3D(), Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.Donut(), Plot.HeatMap(), Plot.Histogram(), Plot.Line(), Plot.PACF(), Plot.Parallel(), Plot.Pie(), Plot.ProbabilityPlot(), Plot.Radar(), Plot.River(), Plot.Rosetype(), Plot.Scatter3D(), Plot.Scatter(), Plot.Step(), Plot.WordCloud()
```

98 Plot.StandardPlots

Examples

```
# Create fake data
data <- AutoPlots::FakeDataGenerator(N = 100000)</pre>
# Echarts Stacked Bar Chart
AutoPlots::Plot.StackedBar(
  dt = data,
  PreAgg = FALSE,
  XVar = "Factor_1",
  YVar = "Adrian",
  GroupVar = "Factor_2",
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  AggMethod = 'mean',
  Height = NULL,
  Width = NULL,
  Title = "Stacked Bar",
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  ShowLabels = FALSE,
  EchartsTheme = "macarons",
  MouseScroll = TRUE,
  TimeLine = TRUE,
  TextColor = "black",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = '#63aeff',
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  yaxis.fontSize = 14,
  xaxis.fontSize = 14,
  xaxis.rotate = 0,
  yaxis.rotate = 0,
  ContainLabel = TRUE,
  Debug = FALSE)
```

 ${\tt Plot.StandardPlots}$

Plot.StandardPlots

Description

Helper for standard plots

Plot.StandardPlots 99

Usage

```
Plot.StandardPlots(
  dt = NULL,
  PreAgg = FALSE,
  PlotType = "Scatter",
  SampleSize = 100000L,
  AggMethod = "mean",
 NumberBins = 30,
  YVar = NULL,
  DualYVar = NULL,
  XVar = NULL,
  ZVar = NULL,
  GroupVar = NULL,
  YVarTrans = NULL,
  DualYVarTrans = NULL,
  XVarTrans = NULL,
  ZVarTrans = NULL,
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  Height = NULL,
 Width = NULL,
  EchartsTheme = "dark-blue",
 MouseScroll = FALSE,
  TimeLine = FALSE,
  Title = NULL,
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  NumLevels_Y = 75,
 NumLevels_X = 40,
  TextColor = "white",
  FontSize = 14,
  Debug = FALSE
)
```

Arguments

dt source data.table
PreAgg FALSE
PlotType character
SampleSize character
AggMethod character
NumberBins For histograms
YVar Y-Axis variable name

DualYVar Secondary Axis for Line, Step, and Area plots

100 Plot.StandardPlots

XVar X-Axis variable name

ZVar Z-Axis variable name

GroupVar Character variable variable

of oupvar Character variable variable

YVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

DualYVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

ZVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

FacetRows Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a

numeric value for the number of output grid rows

FacetCols Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply

a numeric value for the number of output grid columns

FacetLevels Faceting rows x columns is the max number of levels allowed in a grid. If your

Group Var has more you can supply the levels to display.

Height NULL or valid css unit
Width NULL or valid css unit

EchartsTheme "auritus", "azul", "bee-inspired", "blue", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo",

#' "essos", "forest", "fresh-cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired",

#' "jazz", "london", "dark", "macarons", "macarons2", "mint", "purple-passion", "red-

velvet", "red", "roma", "royal", #' "sakura", "shine", "tech-blue", "vintage", "walden", "wef", "weforum", "west

MouseScroll logical, zoom via mouse scroll

TimeLine character Title character ShowLabels character Title.YAxis character Title.XAxis character NumLevels_Y Numeric NumLevels_X Numeric TextColor character FontSize numeric

Debugging purposes

Value

plot

Author(s)

Adrian Antico

Plot.Step 101

See Also

Other Auto Plotting: Plots.ModelEvaluation()

Plot.Step

Plot.Step

Description

This function automatically builds calibration plots and calibration boxplots for model evaluation using regression, quantile regression, and binary and multinomial classification

```
Plot.Step(
  dt = NULL,
  AggMethod = "mean",
  PreAgg = TRUE,
  XVar = NULL,
  YVar = NULL,
  DualYVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  DualYVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
 Height = NULL,
 Width = NULL,
  Title = "Line Plot",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
  Title.XAxis = NULL,
  EchartsTheme = "macarons",
  MouseScroll = TRUE,
  TimeLine = TRUE,
  ShowSymbol = FALSE,
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  xaxis.fontSize = 14,
  yaxis.fontSize = 14,
```

102 Plot.Step

```
xaxis.rotate = 0,
yaxis.rotate = 0,
ContainLabel = TRUE,
Debug = FALSE
)
```

Arguments

dt source data.table

AggMethod character PreAgg logical

XVar X-Axis variable name

YVar Y-Axis variable name. You can supply multiple YVars

DualYVar Secondary Y-Axis variables. Leave NULL for no secondary axis. Only one

variable is allowed and when this is set only one YVar is allowed. An error will

be thrown if those conditions are not met

GroupVar One Grouping Variable

YVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

DualYVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

FacetRows Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a

numeric value for the number of output grid rows

FacetCols Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply

a numeric value for the number of output grid columns

FacetLevels Faceting rows x columns is the max number of levels allowed in a grid. If your

Group Var has more you can supply the levels to display.

Height "400px"
Width "200px"
Title "Title"
ShowLabels character
Title.YAxis character
Title.XAxis character

EchartsTheme Provide an "Echarts" theme
MouseScroll logical, zoom via mouse scroll

TimeLine Logical ShowSymbol = FALSE

TextColor "Not Implemented"

title.fontSize 22

Plot.Step 103

```
title.fontWeight
                "bold"
title.textShadowColor
                '#63aeff'
title.textShadowBlur
title.textShadowOffsetY
title.textShadowOffsetX
               -1
xaxis.fontSize 14
yaxis.fontSize 14
xaxis.rotate
               0
yaxis.rotate
               0
ContainLabel
               TRUE
Debug
               Debugging purposes
```

Value

plot

Author(s)

Adrian Antico

See Also

```
Other Standard Plots: Plot.ACF(), Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Box(), Plot.Copula3D(), Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.Donut(), Plot.HeatMap(), Plot.Histogram(), Plot.Line(), Plot.PACF(), Plot.Parallel(), Plot.Pie(), Plot.ProbabilityPlot(), Plot.Radar(), Plot.River(), Plot.Rosetype(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.WordCloud()
```

Examples

```
# Create fake data
data <- AutoPlots::FakeDataGenerator(N = 1000)

# Build plot
AutoPlots::Plot.Step(
    dt = data,
    PreAgg = FALSE,
    AggMethod = "mean",
    XVar = "DateTime",
    YVar = "Independent_Variable3",
    YVarTrans = "Identity",
    DualYVar = "Independent_Variable6",
    DualYVarTrans = "Identity",
    GroupVar = NULL,</pre>
```

```
EchartsTheme = "macarons")
```

Plot.VariableImportance

Plot.VariableImportance

Description

Generate variable importance plots

Usage

```
Plot.VariableImportance(
  dt = NULL,
  XVar = NULL,
  YVar = NULL,
  GroupVar = NULL,
  YVarTrans = "Identity",
  XVarTrans = "Identity",
  FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
  AggMethod = "mean",
 Height = NULL,
 Width = NULL,
  Title = "Variable Importance Plot",
  ShowLabels = FALSE,
  Title.YAxis = NULL,
 Title.XAxis = NULL,
  EchartsTheme = "macarons",
  TimeLine = TRUE,
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  xaxis.fontSize = 14,
  yaxis.fontSize = 14,
 Debug = FALSE
)
```

Arguments

dt source data.table

Column name of X-Axis variable. If NULL then ignored

Column name of Y-Axis variable. If NULL then ignored

Column name of Y-Axis variable. If NULL then ignored

Column name of Group Variable for distinct colored histograms by group levels

"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"

XVarTrans

"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"

FacetRows Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a

numeric value for the number of output grid rows

FacetCols Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply

a numeric value for the number of output grid columns

FacetLevels Faceting rows x columns is the max number of levels allowed in a grid. If your

GroupVar has more you can supply the levels to display.

AggMethod Choose from 'mean', 'sum', 'sd', and 'median'

Height "400px" Width "200px" Title title ShowLabels character

ShowLabels character
Title.YAxis character
Title.XAxis character

EchartsTheme "auritus", "azul", "bee-inspired", "blue", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo",

#' "essos", "forest", "fresh-cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired",

#' "jazz", "london", "dark", "macarons", "macarons2", "mint", "purple-passion", "red-

velvet", "red", "roma", "royal", #' "sakura", "shine", "tech-blue", "vintage", "walden", "wef", "weforum", "west

TimeLine logical
TextColor 'darkblue'

title.fontSize 22
title.fontWeight

"bold"

title.textShadowColor

'#63aeff'

title.textShadowBlur

3

 ${\tt title.textShadowOffsetY}$

1

title.textShadowOffsetX

-1

xaxis.fontSize 14
yaxis.fontSize 14

Debugging purposes

106 Plot.WordCloud

Value

plot

Author(s)

Adrian Antico

See Also

```
Other Model Evaluation: Plot.BinaryMetrics(), Plot.Calibration.Box(), Plot.Calibration.Line(), Plot.ConfusionMatrix(), Plot.Gains(), Plot.Lift(), Plot.PartialDependence.Box(), Plot.PartialDependence Plot.PartialDependence.Line(), Plot.RoC(), Plot.Residuals.Histogram(), Plot.Residuals.Scatter(), Plot.ShapImportance()
```

Plot.WordCloud

Plot.WordCloud

Description

WordCloud plots

```
Plot.WordCloud(
  dt = NULL,
  YVar = NULL,
 Height = NULL,
 Width = NULL,
  Title = "Word Cloud",
  EchartsTheme = "macarons",
  TextColor = "white",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = "#63aeff",
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  xaxis.fontSize = 14,
  yaxis.fontSize = 14,
  xaxis.rotate = 0,
  yaxis.rotate = 0,
  ContainLabel = TRUE,
  Debug = FALSE
)
```

Plot.WordCloud 107

Arguments dt

YVar Y-Axis variable name Height "400px" "200px" Width Title = "Density Plot" **EchartsTheme** "auritus", "azul", "bee-inspired", "blue", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo", "essos", "forest", "fresh-cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired", "jazz","london","dark","macarons","macarons2","mint","purple-passion","red-velvet","red","roma","roy "sakura", "shine", "tech-blue", "vintage", "walden", "wef", "weforum", "westeros", "wonderland" "white", TextColor title.fontSize 22 title.fontWeight "bold" title.textShadowColor '#63aeff' title.textShadowBlur title.textShadowOffsetY title.textShadowOffsetX -1 xaxis.fontSize 14 yaxis.fontSize 14 xaxis.rotate 0 0 yaxis.rotate ContainLabel **TRUE** Debug Debugging purposes

source data.table

Value

plot

See Also

```
Other Standard Plots: Plot.ACF(), Plot.Area(), Plot.BarPlot3D(), Plot.Bar(), Plot.Box(), Plot.Copula3D(), Plot.Copula(), Plot.CorrMatrix(), Plot.Density(), Plot.Donut(), Plot.HeatMap(), Plot.Histogram(), Plot.Line(), Plot.PACF(), Plot.Parallel(), Plot.Pie(), Plot.ProbabilityPlot(), Plot.Radar(), Plot.River(), Plot.Rosetype(), Plot.Scatter3D(), Plot.Scatter(), Plot.StackedBar(), Plot.Step()
```

108 Plots.ModelEvaluation

Examples

```
# Create fake data
dt <- FakeDataGenerator(AddComment = TRUE)</pre>
# Create plot
AutoPlots::Plot.WordCloud(
  dt = dt,
  YVar = "Comment",
  Height = NULL,
  Width = NULL,
  Title = "Word Cloud",
  EchartsTheme = "macarons",
  TextColor = "black",
  title.fontSize = 22,
  title.fontWeight = "bold",
  title.textShadowColor = '#63aeff',
  title.textShadowBlur = 3,
  title.textShadowOffsetY = 1,
  title.textShadowOffsetX = -1,
  xaxis.fontSize = 14,
  yaxis.fontSize = 14,
  xaxis.rotate = 0,
  yaxis.rotate = 0,
  ContainLabel = TRUE,
  Debug = FALSE)
```

Plots.ModelEvaluation Plots.ModelEvaluation

Description

Plot helper for model evaluation plot types

```
Plots.ModelEvaluation(
dt = NULL,
AggMethod = "mean",
SampleSize = 100000L,
PlotType = NULL,
YVar = NULL,
TargetLevel = NULL,
ZVar = NULL,
XVar = NULL,
GroupVar = NULL,
YVarTrans = "Identity",
XVarTrans = "Identity",
ZVarTrans = "Identity",
```

Plots.ModelEvaluation 109

```
FacetRows = 1,
  FacetCols = 1,
  FacetLevels = NULL,
 NumLevels_Y = 75,
 NumLevels_X = 40,
 MouseScroll = FALSE,
 Height = NULL,
 Width = NULL,
 Title = NULL,
  ShowLabels = FALSE,
  Title.YAxis = NULL,
 Title.XAxis = NULL,
 EchartsTheme = "dark-blue",
 TimeLine = FALSE,
  TextColor = "white",
  FontSize = 14L,
 NumberBins = 20,
 Debug = FALSE
)
```

Arguments

dt source data.table

AggMethod character
SampleSize 100000L
PlotType character

YVar Y-Axis variable name

TargetLevel character

ZVar Z-Axis variable name
XVar X-Axis variable name
GroupVar Character variable

Character variable

YVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"

XVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

ZVarTrans "Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standard-

ize", "BoxCox", "YeoJohnson"

FacetRows Defaults to 1 which causes no faceting to occur vertically. Otherwise, supply a

numeric value for the number of output grid rows

FacetCols Defaults to 1 which causes no faceting to occur horizontally. Otherwise, supply

a numeric value for the number of output grid columns

FacetLevels Faceting rows x columns is the max number of levels allowed in a grid. If your

Group Var has more you can supply the levels to display.

 $NumLevels_Y = 75$

110 Plots.ModelEvaluation

 $NumLevels_X = 40$

MouseScroll logical, zoom via mouse scroll

Height "400px"
Width "200px"
Title character
ShowLabels logical
Title.YAxis character
Title.XAxis character

EchartsTheme "auritus", "azul", "bee-inspired", "blue", "caravan", "carp", "chalk", "cool", "dark-bold", "dark", "eduardo",

#" "essos", "forest", "fresh-cut", "fruit", "gray", "green", "halloween", "helianthus", "infographic", "inspired",

 $\hbox{$\#'$ "jazz","london","dark","macarons","macarons2","mint","purple-passion","red-passion","macarons2","mint","purple-passion","red-passion","macarons2","mint","purple-passion","red-passion","macarons2","mint","purple-passion","macarons2","mint","purple-passion","macarons2","mint","purple-passion","macarons2","mint","purple-passion","macarons2","mint","purple-passion","macarons2","mint","purple-passion","macarons2","maca$

velvet","red","roma","royal", #' "sakura","shine","tech-blue","vintage","walden","wef","weforum","west

TimeLine logical
TextColor hex
FontSize numeric
NumberBins numeric

Debugging purposes

Value

plot

Author(s)

Adrian Antico

See Also

Other Auto Plotting: Plot.StandardPlots()

Index

* Auto Plotting	Plot.River, 79
Plot.StandardPlots, 98	Plot.Rosetype, 84
Plots.ModelEvaluation, 108	Plot.Scatter, 87
* Data Wrangling	Plot.Scatter3D, 90
FakeDataGenerator, 3	Plot.StackedBar, 95
* Model Evaluation	Plot.Step, 101
Plot.BinaryMetrics, 15	Plot.WordCloud, 106
Plot.Calibration.Box, 21	
Plot.Calibration.Line, 23	FakeDataGenerator, 3
Plot.ConfusionMatrix, 25	
Plot.Gains, 42	Plot.ACF, 4, 8, 11, 14, 20, 29, 32, 35, 39, 42,
Plot.Lift, 51	47, 50, 55, 58, 60, 69, 71, 74, 81, 86,
Plot.PartialDependence.Box, 61	89, 92, 97, 103, 107
Plot.PartialDependence.HeatMap, 63	Plot. Area, 5, 6, 11, 14, 20, 29, 32, 35, 39, 42,
Plot.PartialDependence.Line, 65	47, 50, 55, 58, 60, 69, 71, 74, 81, 86,
Plot.Residuals.Histogram,75	89, 92, 97, 103, 107
Plot.Residuals.Scatter,77	Plot.Bar, 5, 8, 9, 14, 20, 29, 32, 35, 39, 42,
Plot.ROC, 82	47, 50, 55, 58, 60, 69, 71, 74, 81, 86,
Plot.ShapImportance, 93	89, 92, 97, 103, 107
Plot.VariableImportance, 104	Plot.BarPlot3D, 5, 8, 11, 12, 20, 29, 32, 35,
* Standard Plots	39, 42, 47, 50, 55, 58, 60, 69, 71, 74,
Plot.ACF, 4	81, 86, 89, 92, 97, 103, 107
Plot.Area, 6	Plot.BinaryMetrics, 15, 22, 24, 27, 44, 53,
Plot.Bar,9	63, 65, 67, 77, 79, 83, 95, 106
Plot.BarPlot3D, 12	Plot.Box, 5, 8, 11, 14, 18, 29, 32, 35, 39, 42,
Plot.Box, 18	47, 50, 55, 58, 60, 69, 71, 74, 81, 86,
Plot.Copula, 27	89, 92, 97, 103, 107
Plot.Copula3D, 30	Plot.Calibration.Box, 17, 21, 24, 27, 44,
Plot.CorrMatrix, 33	53, 63, 65, 67, 77, 79, 83, 95, 106
Plot.Density, 36	Plot.Calibration.Line, 17, 22, 23, 27, 44,
Plot.Donut, 39	53, 63, 65, 67, 77, 79, 83, 95, 106
Plot.HeatMap, 45	Plot.ConfusionMatrix, 17, 22, 24, 25, 44,
Plot.Histogram, 48	53, 63, 65, 67, 77, 79, 83, 95, 106
Plot.Line, 53	Plot.Copula, 5, 8, 11, 14, 20, 27, 32, 35, 39,
Plot.PACF, 56	42, 47, 50, 55, 58, 60, 69, 71, 74, 81,
Plot.Parallel, 58	86, 89, 92, 97, 103, 107
Plot.Pie, 67	Plot.Copula3D, 5, 8, 11, 14, 20, 29, 30, 35,
Plot.ProbabilityPlot, 70	39, 42, 47, 50, 55, 58, 60, 69, 71, 74,
Plot.Radar, 72	81, 86, 89, 92, 97, 103, 107

112 INDEX

39, 42, 47, 50, 55, 58, 60, 69, 71, 74, 81, 86, 89, 92, 97, 103, 107 Plot. Density, 5, 8, 11, 14, 20, 29, 32, 35, 36, 42, 47, 50, 55, 58, 60, 69, 71, 74, 81, 86, 89, 92, 97, 103, 107 Plot. Donut, 5, 8, 11, 14, 20, 29, 32, 35, 39, 39, 47, 50, 55, 58, 60, 69, 71, 74, 81, 86, 89, 92, 97, 103, 107 Plot. Gains, 17, 22, 24, 27, 42, 53, 63, 65, 67, 77, 79, 83, 95, 106 Plot. HeatMap, 5, 8, 11, 14, 20, 29, 32, 35, 39, 42, 45, 50, 55, 58, 60, 69, 71, 74, 81, 86, 89, 92, 97, 103, 107 Plot.Histogram, 5, 8, 11, 14, 20, 29, 32, 35, 39, 42, 47, 48, 55, 58, 60, 69, 71, 74, 81, 86, 89, 92, 97, 103, 107 Plot.Lift, 17, 22, 24, 27, 44, 51, 63, 65, 67, 77, 79, 83, 95, 106 Plot.Line, 5, 8, 11, 14, 20, 29, 32, 35, 39, 42, 47, 50, 53, 58, 60, 69, 71, 74, 81, 86, 89, 92, 97, 103, 107 Plot. PACF, 5, 8, 11, 14, 20, 29, 32, 35, 39, 42, 47, 50, 55, 56, 60, 69, 71, 74, 81, 86, 89, 92, 97, 103, 107 Plot.Parallel, 5, 8, 11, 14, 20, 29, 32, 35, 39, 42, 47, 50, 55, 58, 58, 69, 71, 74, 81, 86, 89, 92, 97, 103, 107 Plot.PartialDependence.Box, 17, 22, 24, 27, 44, 53, 61, 65, 67, 77, 79, 83, 95, 106 Plot.PartialDependence.HeatMap, 17, 22, 24, 27, 44, 53, 63, 63, 67, 77, 79, 83, 95, 106 Plot.PartialDependence.Line, 17, 22, 24, 27, 44, 53, 63, 65, 65, 77, 79, 83, 95, Plot. Pie, 5, 8, 11, 14, 20, 29, 32, 35, 39, 42, 47, 50, 55, 58, 60, 67, 71, 74, 81, 86, 89, 92, 97, 103, 107 Plot.ProbabilityPlot, 5, 8, 11, 14, 20, 29, 32, 35, 39, 42, 47, 50, 55, 58, 60, 69, 70, 74, 81, 86, 89, 92, 97, 103, 107 Plot.Radar, 5, 8, 11, 14, 20, 29, 32, 35, 39, 42, 47, 50, 55, 58, 60, 69, 71, 72, 81, 86, 89, 92, 97, 103, 107 Plot.Residuals.Histogram, 17, 22, 24, 27, 44, 53, 63, 65, 67, 75, 79, 83, 95, 106

Plot.CorrMatrix, 5, 8, 11, 14, 20, 29, 32, 33,

Plot.Residuals.Scatter, 17, 22, 24, 27, 44, 53, 63, 65, 67, 77, 77, 83, 95, 106 Plot.River, 5, 8, 11, 14, 20, 29, 32, 35, 39, 42, 47, 50, 55, 58, 60, 69, 71, 74, 79, 86, 89, 92, 97, 103, 107 Plot.ROC, 17, 22, 24, 27, 44, 53, 63, 65, 67, 77, 79, 82, 95, 106 Plot.Rosetype, 5, 8, 11, 14, 20, 29, 32, 35, 39, 42, 47, 50, 55, 58, 60, 69, 71, 74, 81, 84, 89, 92, 97, 103, 107 Plot. Scatter, 5, 8, 11, 14, 20, 29, 32, 35, 39, 42, 47, 50, 55, 58, 60, 69, 71, 74, 81, 86, 87, 92, 97, 103, 107 Plot. Scatter 3D, 5, 8, 11, 14, 20, 29, 32, 35, 39, 42, 47, 50, 55, 58, 60, 69, 71, 74, 81, 86, 89, 90, 97, 103, 107 Plot. ShapImportance, 17, 22, 24, 27, 44, 53, 63, 65, 67, 77, 79, 83, 93, 106 Plot.StackedBar, 5, 8, 11, 14, 20, 29, 32, 35, 39, 42, 47, 50, 55, 58, 60, 69, 71, 74, 81, 86, 89, 92, 95, 103, 107 Plot.StandardPlots, 98, 110 Plot. Step, 5, 8, 11, 14, 20, 29, 32, 35, 39, 42, 47, 50, 55, 58, 60, 69, 71, 74, 81, 86, 89, 92, 97, 101, 107 Plot. Variable Importance, 17, 22, 24, 27, 44, 53, 63, 65, 67, 77, 79, 83, 95, 104 Plot. WordCloud, 5, 8, 11, 14, 20, 29, 32, 35, 39, 42, 47, 50, 55, 58, 60, 69, 71, 74, 81, 86, 89, 92, 97, 103, 106 Plots.ModelEvaluation, 101, 108