Package 'AutoPlots'

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Title Creating Echarts Visualizations as Easy as Possible

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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

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Contents

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

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"

AggMethod	Choose from 'mean', 'sum', 'sd', and 'median'
Height	"400px"
Width	"200px"
Title	title
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
TextColor	'darkblue'
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	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(), Plot.Step(), Plot.WordCloud()

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,
```

```
  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", "Standardize", "BoxCox", "YeoJohnson"
DualYVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "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 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	= TRUE
ShowSymbol	= FALSE
TextColor	"Not Implemented"
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	Debugging purposes
Area	logical

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",
```

```
  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,
```

```
  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", "Standardize", "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 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
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	'darkblue'
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	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,
```

```
  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,
```

```
  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.

NumberBins	= 21
NumLevels_Y	= 20
NumLevels_X	= 20
Height	"400px"
Width	"200px"
Title	"Heatmap"
ShowLabels	character
Title.YAxis	character
Title.XAxis	character
EchartsTheme	"dark-blue"
MouseScroll	logical, zoom via mouse scroll
TextColor	character
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	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()

Examples

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

# 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

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","Tl
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", "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.
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","roma","royal", #' "sakura","shine","tech-blue","vintage","walden","wef","weforum","west
EchartsLabels	character
TimeLine	logical
TextColor	hex character
Debug	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()`

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

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"
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	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
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	Debugging purposes

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,
```

```
  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

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"
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
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","west
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 *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"

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
TimeLine	logical
MouseScroll	logical, zoom via mouse scroll
TextColor	"Not Implemented"
Debug	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 *Plot.ConfusionMatrix*

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

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", "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.
NumberBins	= 21,
NumLevels_X	= NumLevels_Y,
NumLevels_Y	= NumLevels_X,
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", #' "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	'darkblue'
AggMethod	Choose from 'mean', 'sum', 'sd', and 'median'
GroupVar	= NULL
xaxis.rotate	numeric
yaxis.rotate	numeric
ContainLabel	logical
Debug	Debugging purposes

Value

plot

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",
```

```
  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", "Standardize", "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 GroupVar 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

title.fontWeight
: "bold"

title.textShadowColor
: '#63aeff'

title.textShadowBlur
: 3

title.textShadowOffsetY
: 1

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)

# 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,
```

```
  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",
```

```
  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
)
```

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
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"
Width	"200px"

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	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	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()

Examples

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

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	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
MaxNAPercent	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
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

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()

Examples

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

# 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

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
SampleSize	= 100000L
YVar	Y-Axis variable name
XVar	X-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"

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
xaxis.rotate	0
yaxis.rotate	0
ContainLabel	TRUE
Debug	Debugging purposes

Value

plot

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)))

# 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)
```

`Plot.Donut` *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"

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 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
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","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
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.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))

# 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 *Plot.Gains*

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
)
```

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", "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.
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
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.Lift()`, `Plot.PartialDependence.Box()`, `Plot.PartialDependence.HeatMap()`, `Plot.PartialDependence.Line()`, `Plot.ROC()`, `Plot.Residuals.Histogram()`, `Plot.Residuals.Scatter()`, `Plot.ShapImportance()`, `Plot.VariableImportance()`

Plot.HeatMap *Plot.HeatMap*

Description

Create heat maps with numeric or categorical dt

Usage

```
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
)
```

Arguments

dt	source data.table
PreAgg	logical
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.
NumberBins	= 21
NumLevels_Y	= 20
NumLevels_X	= 20.
Height	"400px"
Width	"200px"
Title	"Heatmap"
ShowLabels	character
Title.YAxis	character
Title.XAxis	character
EchartsTheme	"dark-blue"
MouseScroll	logical, zoom via mouse scroll
TextColor	color
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	Debugging parameter

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)

# 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,
```

```
  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.

Usage

```
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,
```

```
  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
GroupVar	Column name of Group Variable for distinct colored histograms by group levels
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "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 GroupVar has more you can supply the levels to display.
NumberBins	= 30
Height	"400px"
Width	"200px"
EchartsTheme	= EchartsTheme,
Title	character
MouseScroll	logical, zoom via mouse scroll
TimeLine	logical
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 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.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)))

# 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,
```

```
  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)
```

`Plot.Lift` *Plot.Lift*

Description

Create a cumulative gains chart

Usage

```
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",
```

```
  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", "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.
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
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.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

Usage

```
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,
```

```
  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", "Standardize", "BoxCox", "YeoJohnson"
DualYVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "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 GroupVar has more you can supply the levels to display.
Height	NULL
Width	NULL

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
ShowSymbol	= FALSE
TextColor	"Not Implemented"
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	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()

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")
```

Plot.PACF *Plot.PACF*

Description

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

Usage

```
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,
```

```
  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 value for lags to test
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
AggMethod	Choose from 'mean', 'sum', 'sd', and 'median'
Height	"400px"
Width	"200px"
Title	title
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
TextColor	'darkblue'
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	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.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.

Usage

```
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,
```

```
  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","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	3
title.textShadowOffsetY	1
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.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.PartialDependence.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", "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.
NumberBins	numeric
AggMethod	character
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
EchartsLabels	character
TimeLine	logical
TextColor	hex character
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.HeatMap(), Plot.PartialDependence.Line(), Plot.ROC(), Plot.Residuals.Histogram(), Plot.Residuals.Scatter(), Plot.ShapImportance(), Plot.VariableImportance()

Plot.PartialDependence.HeatMap

Plot.PartialDependence.HeatMap

Description

This function automatically builds partial dependence calibration plots

Usage

```
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", "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.
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","roma","royal", #' "sakura","shine","tech-blue","vintage","walden","wef","weforum","west
EchartsLabels	character
TimeLine	logical
TextColor	hex character
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.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

Usage

```
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", "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	Character variable
NumberBins	numeric
AggMethod	character
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
EchartsLabels	character
TimeLine	logical
TextColor	hex character
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.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

Usage

```
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,
```

```
  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"
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 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
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","wefo
TimeLine	logical
TextColor	'darkblue'
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	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",
```

```
  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

YVar	Y-Axis variable name
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "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()

Examples

```
# Create fake data
dt <- data.table::data.table(Y = qnorm(p = runif(10000)))

# 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

Usage

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

```
  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
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "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	3
title.textShadowOffsetY	1
title.textShadowOffsetX	-1
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.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))

# 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

Usage

```
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", "Standardize", "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 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
title.textShadowOffsetY	1

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

Usage

```
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,
```

```
  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", "Standardize", "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 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

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

Usage

```
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",
```

```
  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", "Standardize", "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 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

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)

# 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")
```

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"

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	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
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.Residuals.Histogram(), Plot.Residuals.Scatter(), Plot.ShapImportance(), Plot.VariableImportance()

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

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"
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 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
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","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
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.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))

# 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 *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.

Usage

```
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
)
```

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"
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	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","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
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	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)
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,
```

```
  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.

Usage

```
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",
```

```
  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

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
GroupVar	Requires an XVar and YVar already be defined
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.
Height	"400px"
Width	"200px"
Title	'Violin Plot'
ShowLabels	character
Title.YAxis	character

Title.XAxis	character
EchartsTheme	= "macaron"
TimeLine	Logical
TextColor	'darkblue'
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	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()

Examples

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

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	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"
Width	"200px"
Title	"Heatmap"

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

Usage

```
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",
```

```
  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", "Standardize", "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 GroupVar 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

ShowLabels	logical
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	'darkblue'
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	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.Step(), Plot.WordCloud()

Examples

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

# 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)
```

Plot.StandardPlots *Plot.StandardPlots*

Description

Helper for standard plots

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

XVar	X-Axis variable name
ZVar	Z-Axis variable name
GroupVar	Character variable variable
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "BoxCox", "YeoJohnson"
DualYVarTrans	"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.
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
Debug	Debugging purposes

Value

plot

Author(s)

Adrian Antico

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

Usage

```
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,
```

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

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
: 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,
```

```
  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

XVar	Column name of X-Axis variable. If NULL then ignored
YVar	Column name of Y-Axis variable. If NULL then ignored
GroupVar	Column name of Group Variable for distinct colored histograms by group levels
YVarTrans	"Asinh", "Log", "LogPlus1", "Sqrt", "Asin", "Logit", "PercRank", "Standardize", "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 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
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
title.textShadowOffsetY	1
title.textShadowOffsetX	-1
xaxis.fontSize	14
yaxis.fontSize	14
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.Histogram(), Plot.Residuals.Scatter(), Plot.ShapImportance()

Plot.WordCloud *Plot.WordCloud*

Description

WordCloud plots

Usage

```
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
)
```

Arguments

dt	source data.table
YVar	Y-Axis variable name
Height	"400px"
Width	"200px"
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"
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	Debugging purposes

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()

Examples

```
# Create fake data
dt <- FakeDataGenerator(AddComment = TRUE)

# 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

Usage

```
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",
```

```
  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
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.
NumLevels_Y	= 75

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", #' "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	hex
FontSize	numeric
NumberBins	numeric
Debug	Debugging purposes

Value

plot

Author(s)

Adrian Antico

See Also

Other Auto Plotting: `Plot.StandardPlots()`

Index