

modelStudio CHEAT SHEET

Interactive Studio with Explanations for ML Predictive Models

Main Function

modelStudio(object, new_observation, facet_dim, time, max_features, N, B, show_info, parallel, options, viewer)

This tool uses your model, data and new observations, to provide local and global explanations. It generates plots and descriptions in the form of the serverless HTML site, that supports animations and interactivity made with D3.js.

object An explainer created with function DALEX::explain() or a model to be explained.
new_observation A new observation with columns that correspond to variables used in the model.
facet_dim Dimensions of the grid. Default is c(2,2).
time Time in ms. Set animation length. Default is 500.
max_features Maximum number of features to be included in Break Down and SHAP Values plots. Default is 10.
N Number of observations used for calculation of partial dependency profiles. Default is 400.
B Number of random paths used for calculation of SHAP values. Default is 15.
show_info Verbose progress bar on the console. Default is TRUE.
parallel Speed up the computation using 'parallelMap::parallelMap()'.
options Customize modelStudio. See modelStudioOptions function.
viewer Default is 'external' to display in an external RStudio window. Use 'browser' to display in an external browser or 'internal' to use the RStudio internal viewer pane for output.

Model Studio Options

modelStudioOptions(scale_plot, show_subtitle, subtitle, margin_*, w, h, bar_width, line_size, point_size, [bar,line,point]_color, positive_color, negative_color, default_color)

This function returns default options for modelStudio. It is possible to modify values of this list and pass it to the options parameter in the main function.

scale_plot TRUE Makes every plot the same height, ignores bar_width.
show_subtitle TRUE Should the subtitle be displayed?
subtitle label parameter from explainer.
margin_* Plot margins. Change margin_left for longer/shorter axis labels.
w 420 in px. Inner plot width.
h 280 in px. Inner plot height.
bar_width 16 in px. Default width of bars for all plots, ignored when scale_plot = TRUE.
line_size 2 in px. Default width of lines for all plots.
point_size 3 in px. Default point radius for all plots.
[bar,line,point]_color [#46bac2,#46bac2,#371ea3]
positive_color #8bdcb2 for Break Down and SHAP Values bars.
negative_color #f05a71 for Break Down and SHAP Values bars.
default_color #371ea3 for Break Down bar and highlighted line.

Plot Specific Options

modelStudioOptions(**_title, **_subtitle, **_bar_width, **_line_size, **_point_size, **_*_color)

****_title** Plot specific title. Default varies.
****_subtitle** Plot specific subtitle. Default is subtitle.
****_bar_width** Plot specific width of bars. Default is bar_width, ignored when scale_plot = TRUE.
****_line_size** line_size Plot specific width of lines. Default is line_size.
****_point_size** Plot specific point radius. Default is point_size.
****_*_color** Plot specific [bar,line,point] color. Default is [bar,line,point]_color.

