

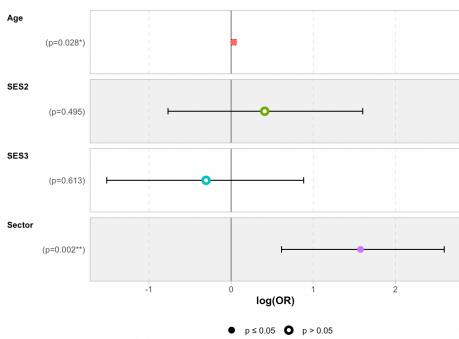
# Extension of ggplot2 :: GGally

## Introduction

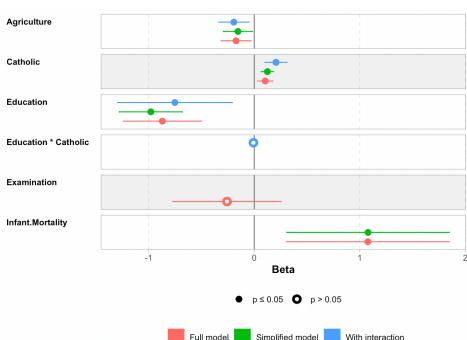
ggplot2 is an R package for plotting based on the grammar of graphics. **GGally** is an extension of ggplot2. It adds several functions to reduce the difficulties of combining different geoms.

## ggcoef\_model()

The ggcoef\_model() function is designed to show the coefficients of a regression model on a plot.



**ggcoef\_model(mod)**  
In the example plot, the “mod” is a glm model. The plot gives out the p-value, point estimation, and confidence interval of the coefficients.



**ggcoef\_model(list\_mod)**  
In the example plot, the “list\_mod” is a list of several linear regression models. The plot shows the coefficients in different models to help users compare and chose the appropriate one.

## ggmatrix()

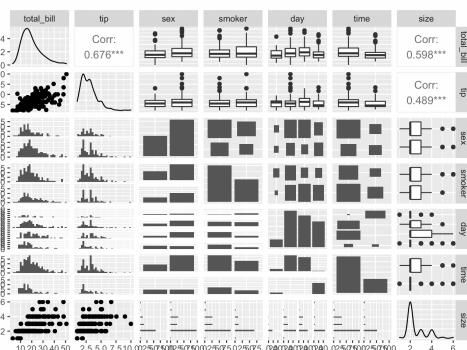
ggmatrix() is a function for managing multiple plots in a matrix-like layout.



**ggmatrix(plotList, nrow, ncol, xAixsLabels, yAixsLabels)**

## ggpairs()

ggpairs() is a special form of ggmatrix(). It will provides to different comparison of pairwise comparison of multivariate data.



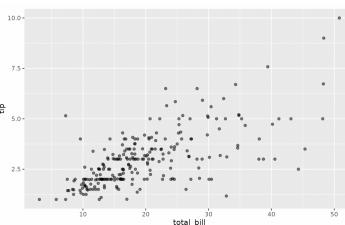
**ggpairs(dataset)**

To select the variables, use the “column” parameter. The plot used by ggpairs() to compare two columns is, by default, chosen by ggpairs() itself. But it can be substituted with the plot of ggally\_\*( ).

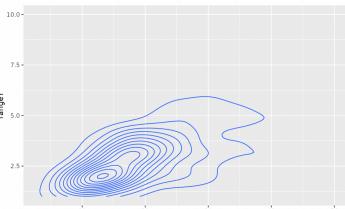
## ggally\_\*( )

ggally\_\*( ) is a set of high-level plots available in "GGally" to be used in ggpairs.

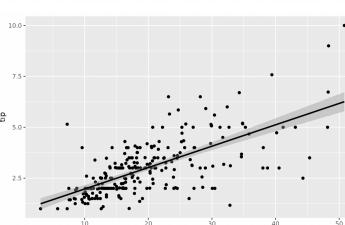
### Bivariate plot 2x continuous variables



ggally\_<br>autopoint

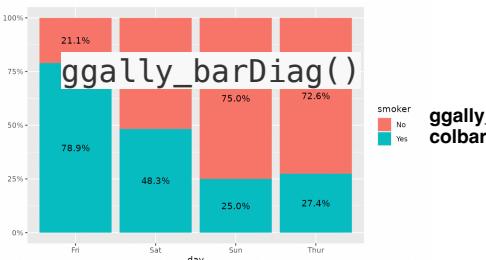


ggally\_<br>density

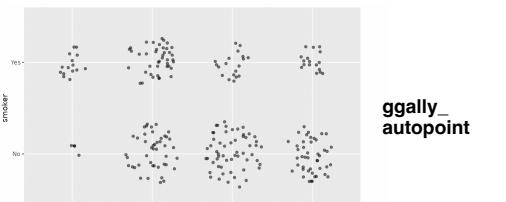


ggally\_<br>smooth\_lm

### 2x discrete variables



smoker  
ggally\_barDiag

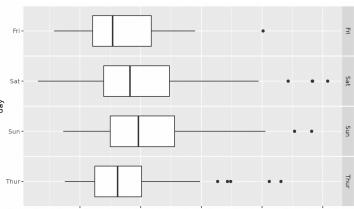


ggally\_<br>autopoint

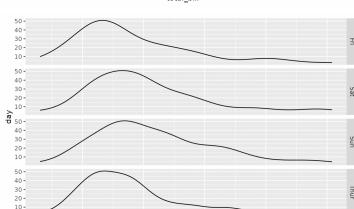


ggally\_crosstable

### 1x continuous and 1x discrete variables

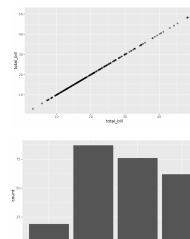


ggally\_box



ggally\_facetdensitystrip

### Univariate plot



ggally\_<br>autopointDiag



ggally\_barDiag

# Three Column Layout: : CHEAT SHEET



## Basics

Thank you for making a new cheatsheet for R! These cheatsheets have an important job:

Cheatsheets make it easy for R users

Remember that the best cheatsheets are **visual**—not written documents. Whenever possible use visual elements to make it easier for readers to find the information they need.

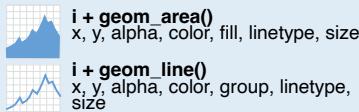
1. Use a **layout** that flows and makes it easy to zero in on specific topics.



2. Use **visualizations** to explain concepts quickly and concisely.

summary function

3. Use visual elements to make the sheet **scannable**.



4. Use visual **emphasis** (like color, size, and font weight) to make important information easy to find.

dplyr::lag() - Offset elements by 1  
dplyr::lead() - Offset elements by -1

## COPYRIGHT

Each cheatsheet should be licensed under the creative commons license.

To license the sheet as creative commons, put CC'd by <your name> in the small print at the bottom of each page and link it to <http://creativecommons.org/licenses/by/4.0/>

YOUR LOGO  
(optional)

## Layout Suggestions

Use headers, colors, and/or backgrounds to **separate or group together sections**.

Section 1    Section 2    Section 3

## Manipulate Variables

Quickly identify content with a **package hexsticker** (if available).

Fit **sections to content**. Try several different layouts.

Use numbers or arrows to link sections if the order/**flow** is confusing.

## Logistics

### FONTS

This template uses several fonts: **Helvetica Neue**, **Menlo**, **Source Sans pro**, which you can acquire for free here, [www.fontsquirrel.com/fonts/source-sans-pro](http://www.fontsquirrel.com/fonts/source-sans-pro), and **Font Awesome**, which you can acquire here, [fortawesome.github.io/Font-Awesome/get-started/](https://fontawesome.github.io/Font-Awesome/get-started/)

To use a **font awesome** icon, copy and paste one from here [fortawesome.github.io/Font-Awesome/cheatsheet/](https://fortawesome.github.io/Font-Awesome/cheatsheet/). Then set the text font to font awesome.

### KEYNOTE

I make my cheatsheets in **Apple Keynote**, and not latex or R Markdown, because presentation software makes it much easier to tweak the visual appearance of a document

### KEYNOTE TIPS

- **Select multiple elements** by holding down shift and then selecting each. Click on a selected element before letting go of shift to unselect it.
- To **group elements together**. Select them all , then click Arrange > Group
- To **evenly space multiple objects**, select them all then Right Click > Align objects or Right Click > Distribute objects
- Click on a table, then visit Format >Table > Row and Column Size to make **even width rows/columns**.

## Useful Elements

### CODE

Where possible, use **code that works** when run.

```
ggplot(mpg, aes(hwy, cty)) +  
  geom_point(aes(color = cyl)) +  
  geom_smooth(method = "lm")
```

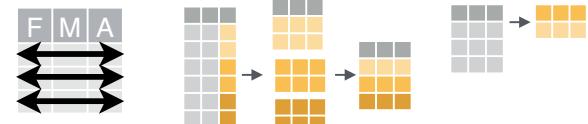
Word balloons  
can help explain code

### ICONS

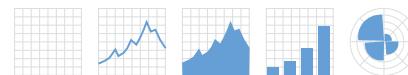


These are just font awesome characters

### MOCK TABLES



### MOCK GRAPHS



### TABLES

sub-option	description
citation_package	The LaTeX package to process
code_folding	Let readers to toggle the display of
colortheme	Beamer color theme to use