

ggvis & Group_by

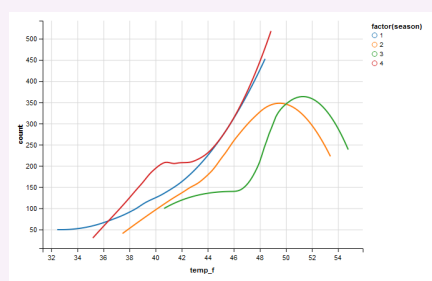
When these 2 are used in conjunction, we can create powerful visualizations.

Code:

```
train_tbl %>%
  group_by( season ) %>%
  ggvis( ~temp_f, ~count, stroke
= ~factor( season ) ) %>%
  layer_ smoths()
```

Here, season is a categorical variable. And we have grouped it and then used stroke to highlight the different seasons.

Output



In-Built plot types

1. layer_points()
2. layer_lines()
3. layer_bars()
4. layer_smoths()
5. layer_histograms()

Most popular ones cited

Global Vs Local properties

A property that is set inside ggvis() is applied globally. While a property set inside layer_ <marks > is applied locally.

Local properties can override global properties when applicable.

Scale Types

Any visual property in the visualization can be adjusted with scale().

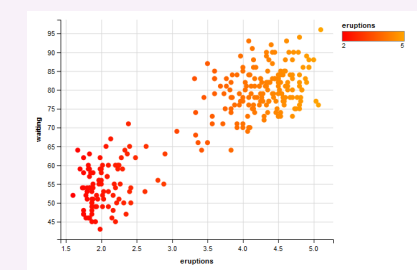
ggvis provides several different functions for creating scales:

```
scale_ dateti me(), scale_ log -
ical(), scale_ nom inal(),
scale_ num eric(), scale_ sin -
gular()
```

Code

```
faithful %>%
  ggvis( ~eru pt ion s, ~wai ting,
fill = ~eru pt ion s ) %>%
  layer_ poi nts() %>%
  scale_ num eric( "f ill ", range
= c( "r ed", " ora nge " ) )
```

Output



ggvis & interaction ()

We can also group data based on interaction of two or more variables.

group_by() creates unique groups for each distinct combination of values within the grouping variables.

ungroup() can remove the grouping information.

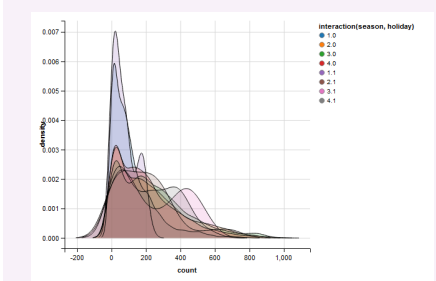
ggvis & interaction () (cont)

interaction() can map the properties to unique combinations of the variables

Code:

```
train_tbl %>%
  group_ by( sea son , ho liday )
%>%
  ggvis( ~count, fill = ~inter -
act ion (se aso n, ho li day) )
%>%
  layer_ den sit ies()
```

Output



Model Prediction

layer_model_predictions() plots the prediction line of a model fitted to the data.

```
layer_ mod el_ pre dic tio ns( -
model = " lm" )
```

Code:

```
faithful %>%
  ggvis( ~eru pt ion s, ~wai ting )
%>%
  layer_ poi nts (fill := " gre -
en", fillOp acity := 0.5) %>%
  layer_ mod el_ pre dic tio ns( -
model = " lm", stroke := " -
red " ) %>%
  layer_ smoth s( stroke := " -
sky blu e" )
```



By shanly3011

cheatography.com/shanly3011/

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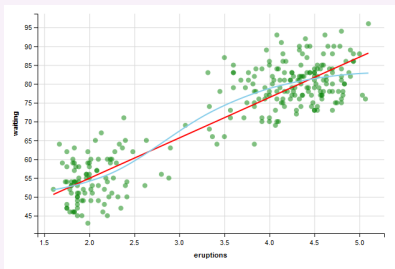
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Output



Interactive Plots

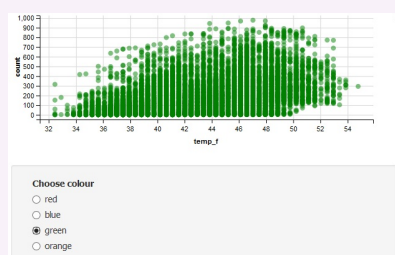
ggvis comes several widgets such as

```
input_checkbox(),
input_checkbox_group(),
input_numeric(),
input_radiobuttons(),
input_select(),
input_slider(), and input_text().
```

label = "ABCD", choices = c("red", "black") - value = "black" - Used with input_text() map = as.name used when we want to return variable names

Are the common arguments inside these functions.

Output



Legends & Axis

Axis

You can add axes with `add_axis()`

Syntax:

```
faithful %>%
ggvis( ~eruptions, ~waiting)
%>%
add_axis( " x", label = " Eru -
ptions ", values = c(1,2, 3,4),
subdivide = 9, orient = top")
%>%
```

```
layer_points()
```

Legends

ggvis adds a legend for each property that is specified. To combine multiple legends into a single legend with common values, use a vector of property names.

```
add_legend()
hide_legend()
```

Syntax

```
faithful %>%
ggvis( ~waiting, ~eruptions,
opacity := 0.6,
fill = ~factor(round(erup -
tions)), shape = ~factor(r -
ound(erup tions)),
size = ~round (eruptions) %>%
layer_points() %>%
add_legend(c ("fill", " sha -
pe", " siz e"),
title = "~ duration (m)", values
= c(2, 3, 4, 5))
```

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