Vizualisations

Victoria

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Visualizations with R

Loading Libraries

```
library(ggplot2)
library(ggdist)
library(ggbeeswarm)
```

View Iris Dataset

```
head(iris)
```

```
##   Sepal.Length Sepal.Width Petal.Length Petal.Width Species
## 1          5.1         3.5          1.4         0.2  setosa
## 2          4.9         3.0          1.4         0.2  setosa
## 3          4.7         3.2          1.3         0.2  setosa
## 4          4.6         3.1          1.5         0.2  setosa
## 5          5.0         3.6          1.4         0.2  setosa
## 6          5.4         3.9          1.7         0.4  setosa
```

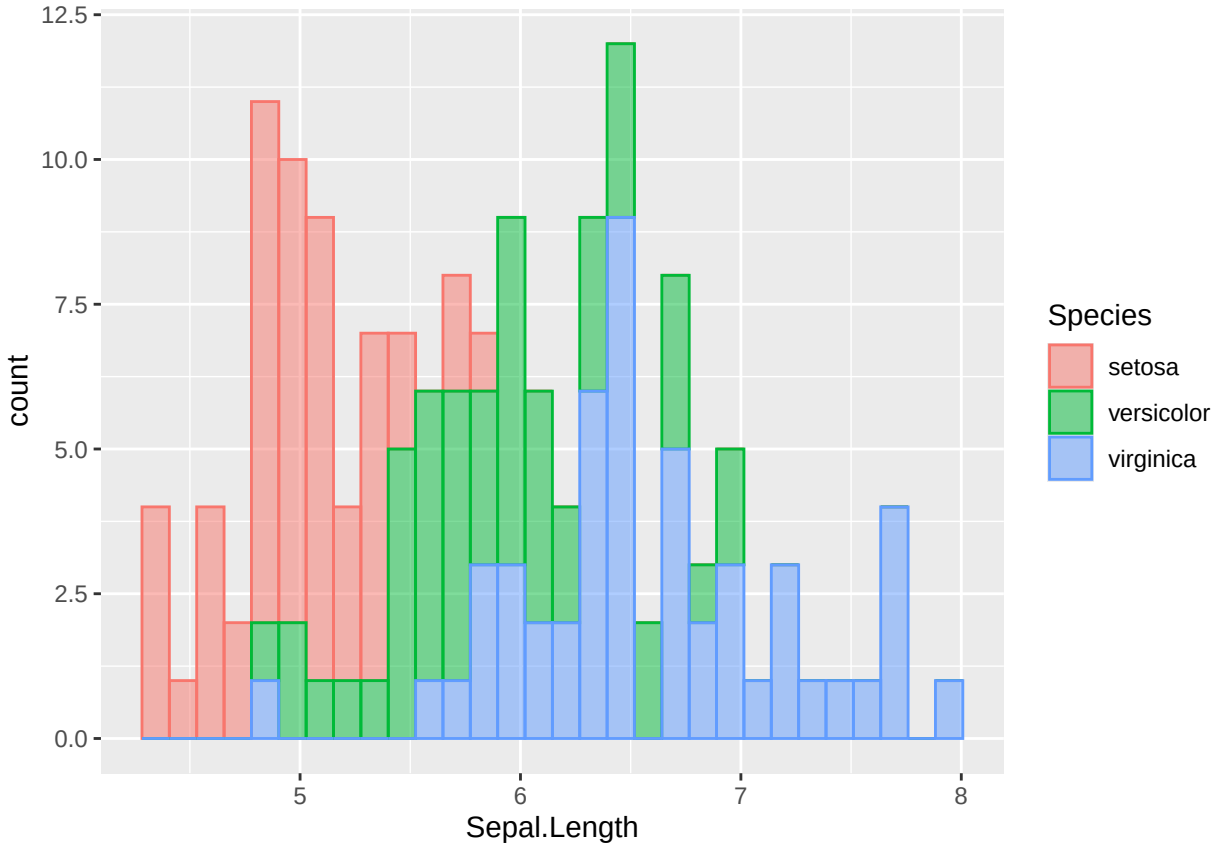
```
str(iris)
```

```
## 'data.frame':    150 obs. of  5 variables:
##  $ Sepal.Length: num  5.1 4.9 4.7 4.6 5 5.4 4.6 5 4.4 4.9 ...
##  $ Sepal.Width : num  3.5 3 3.2 3.1 3.6 3.9 3.4 3.4 2.9 3.1 ...
##  $ Petal.Length: num  1.4 1.4 1.3 1.5 1.4 1.7 1.4 1.5 1.4 1.5 ...
##  $ Petal.Width : num  0.2 0.2 0.2 0.2 0.2 0.4 0.3 0.2 0.2 0.1 ...
##  $ Species     : Factor w/ 3 levels "setosa","versicolor",..: 1 1 1 1 1 1 1 1 1 1 ...
```

Histogram

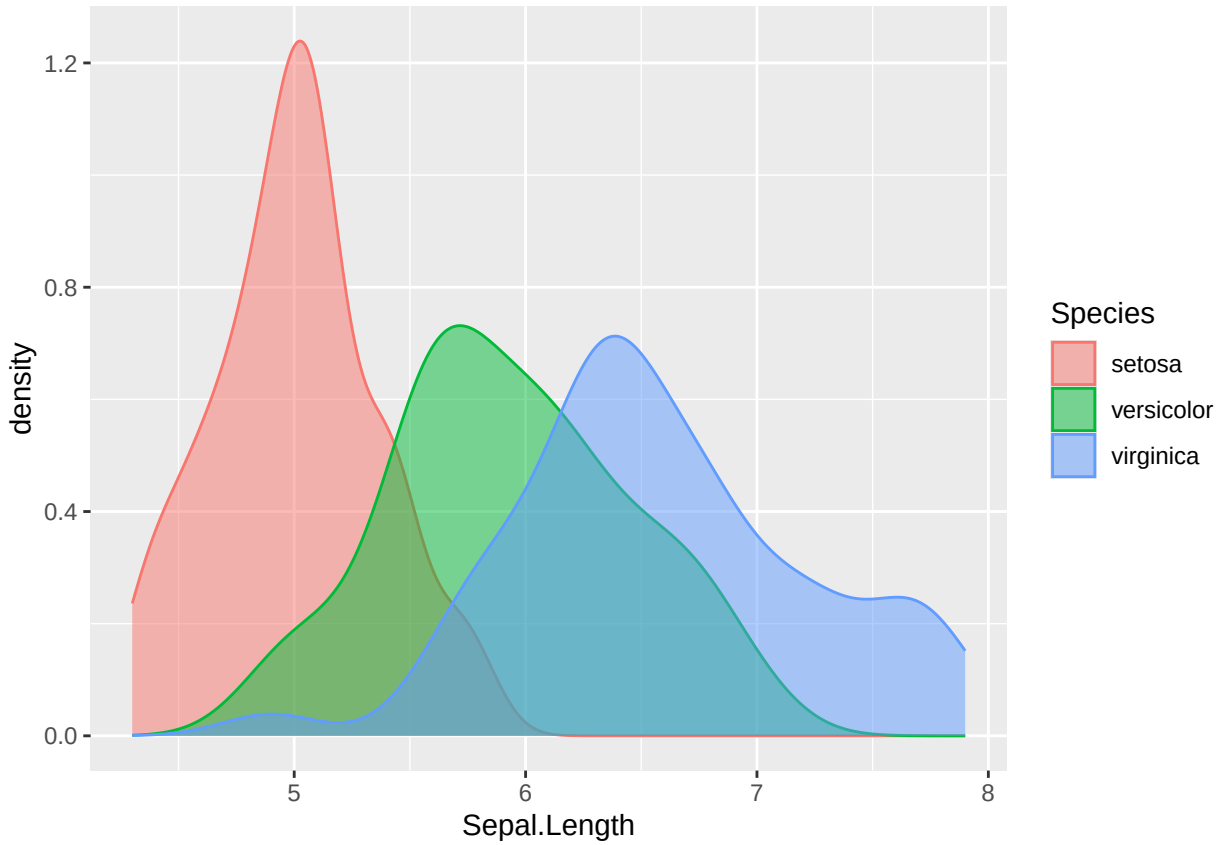
```
ggplot(iris,aes(Sepal.Length,fill=Species,color=Species))+
  geom_histogram(alpha=0.5)
```

```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```



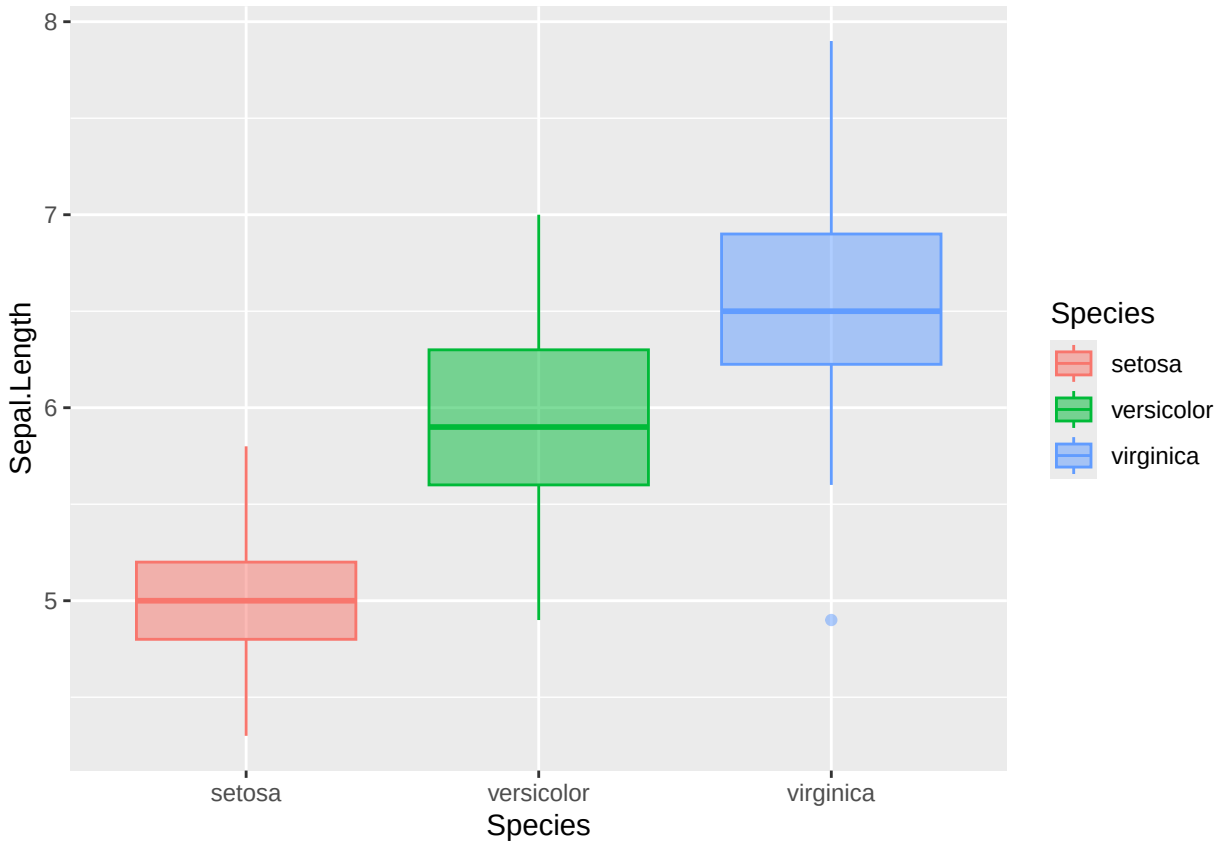
Density Plot

```
ggplot(iris,aes(Sepal.Length,fill=Species,color=Species))+
  geom_density(alpha=0.5)
```



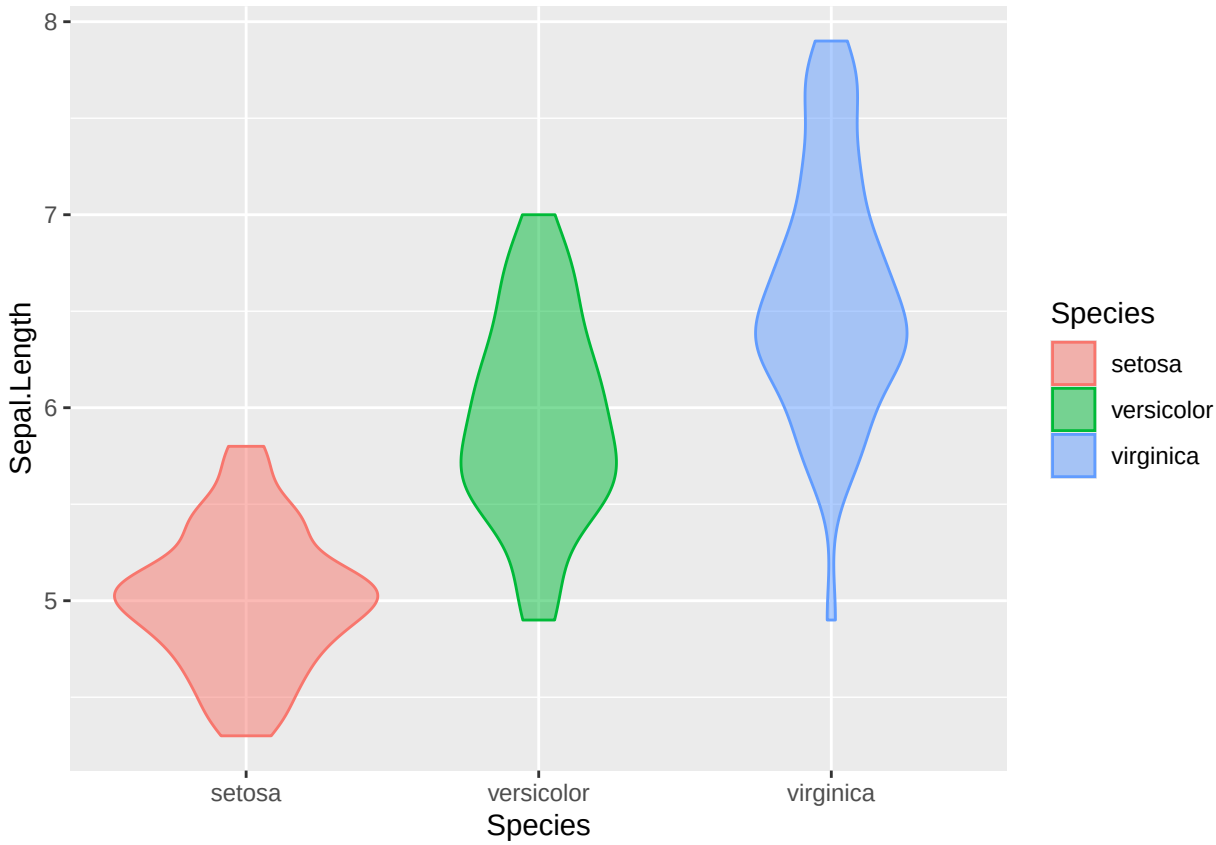
BoxPlot

```
ggplot(iris,aes(Species, Sepal.Length,fill=Species,color=Species))+
  geom_boxplot(alpha=0.5)
```



Violin

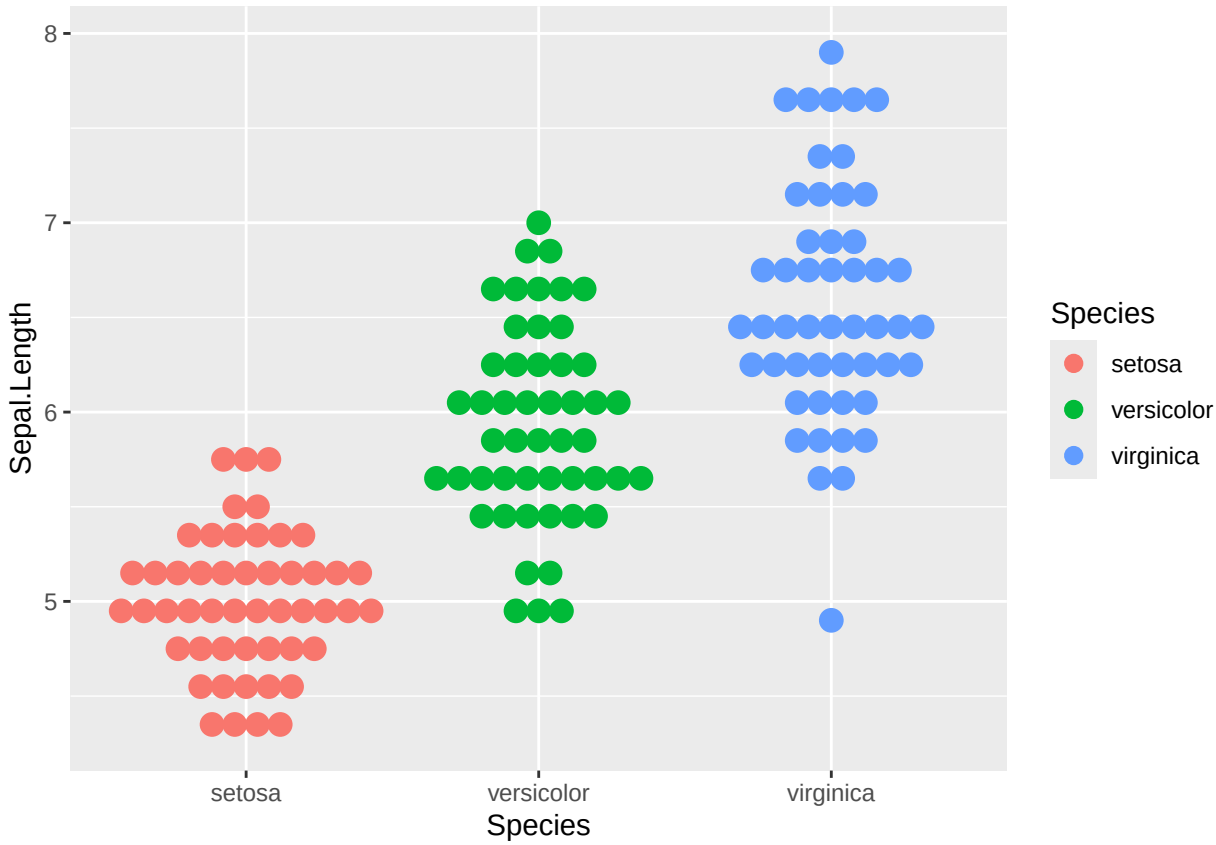
```
ggplot(iris,aes(Species,Sepal.Length,fill=Species,color=Species))+
  geom_violin(alpha=0.5)
```



Dot Plot

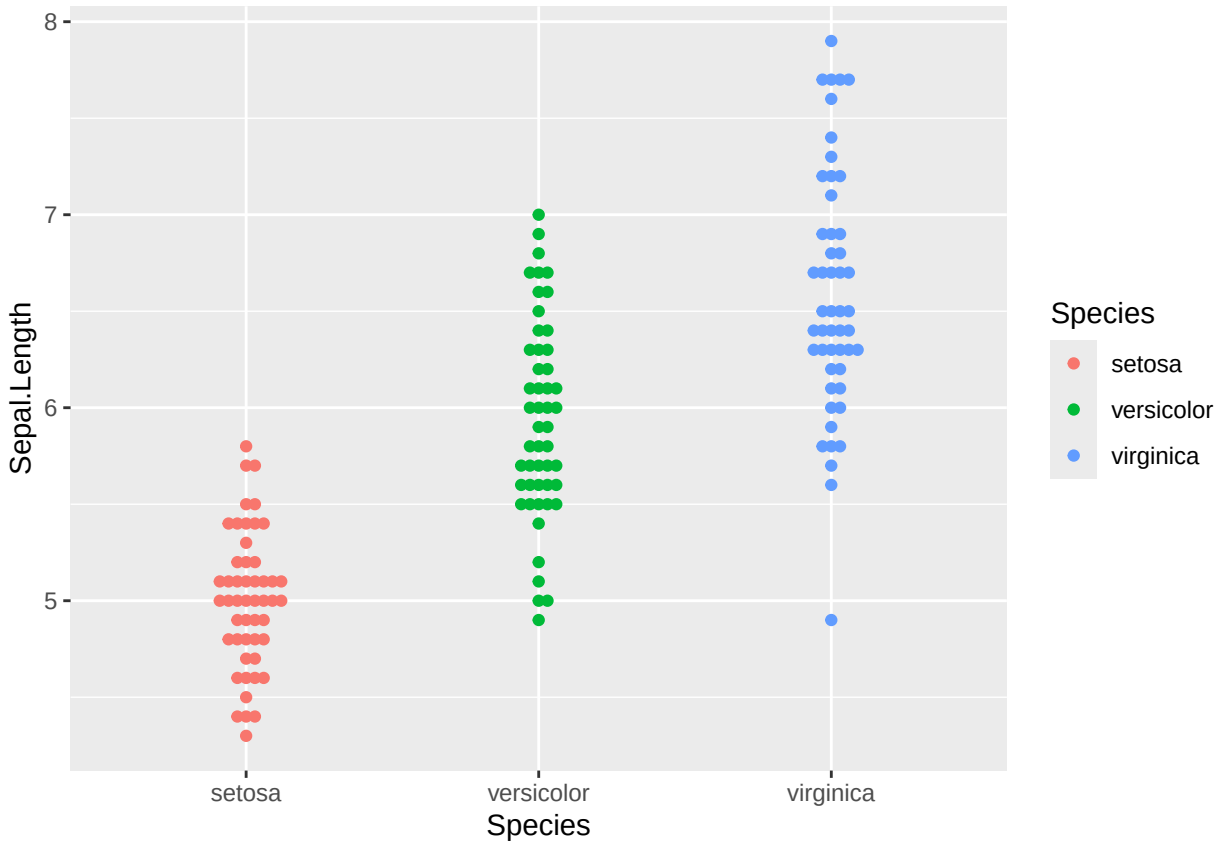
```
ggplot(iris,aes(Species,Sepal.Length,fill=Species,color=Species))+
  geom_dotplot(binaxis = "y", stackdir = "center")
```

```
## Bin width defaults to 1/30 of the range of the data. Pick better value with
## `binwidth`.
```



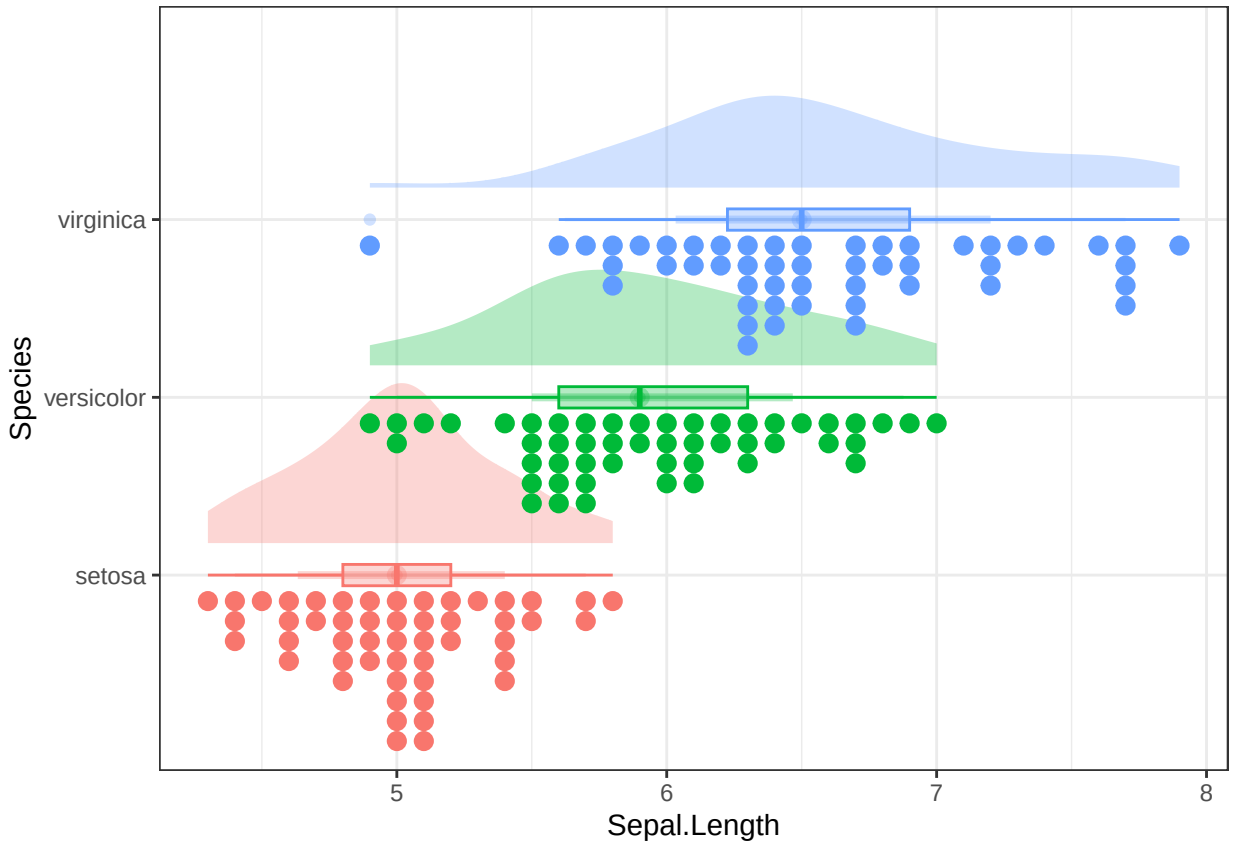
Beeswarm

```
ggplot(iris,aes(Species,Sepal.Length,fill=Species,color=Species))+
  geom_beeswarm()
```

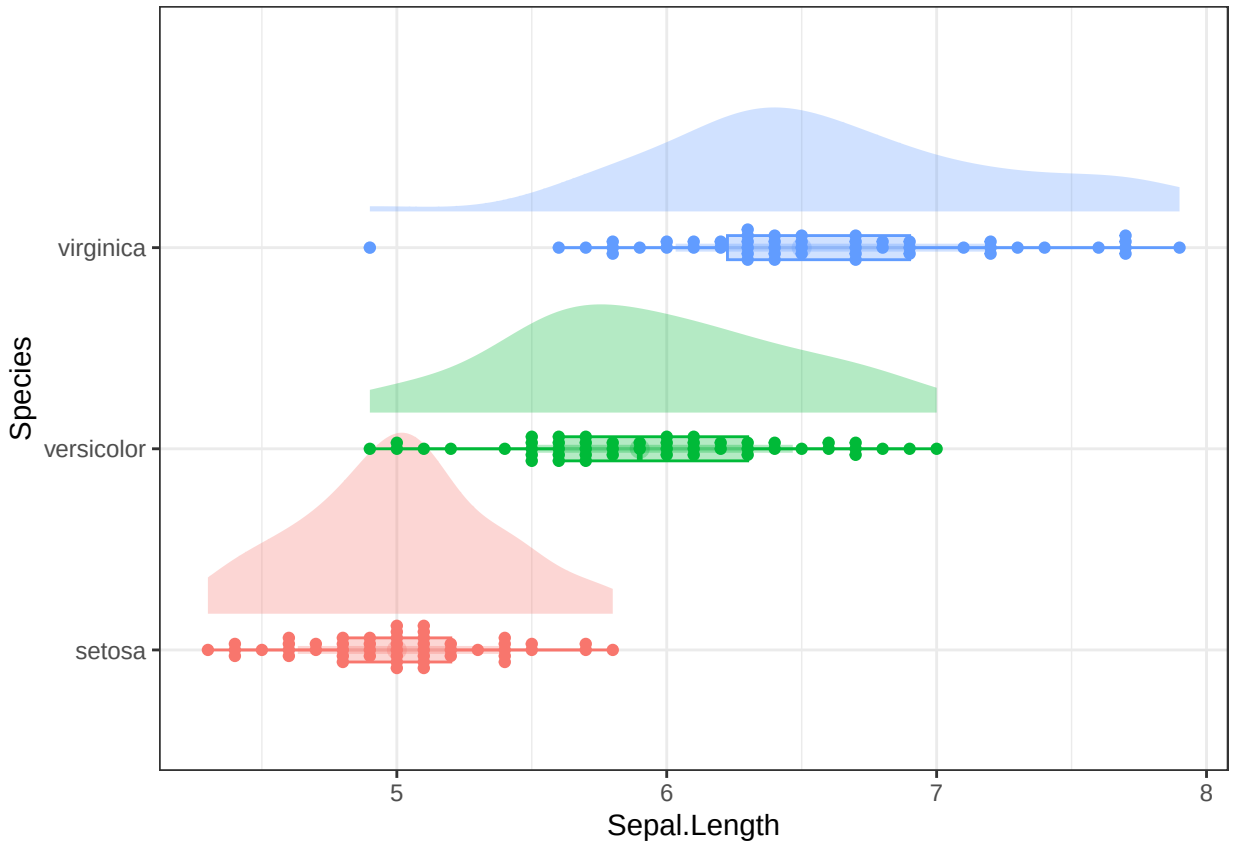


Raincloud Plots

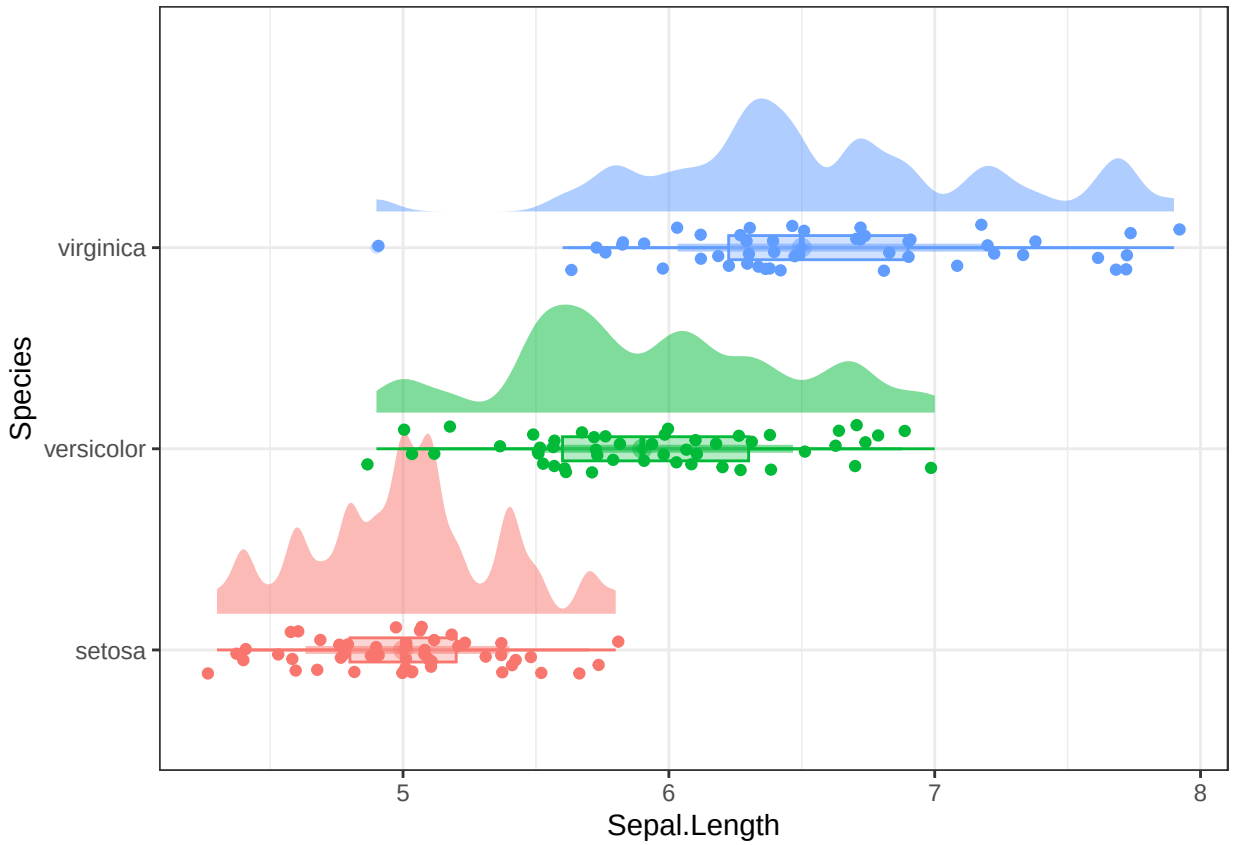
```
ggplot(iris,aes(Species,Sepal.Length,fill=Species,color=Species))+
  stat_halfeye(alpha=0.3,justification=-0.2)+
  geom_boxplot(width=0.12,alpha=0.3)+
  stat_dots(side="left",justification=+1.1)+
  coord_flip()+
theme_bw()+
  theme(legend.position = "none")
```



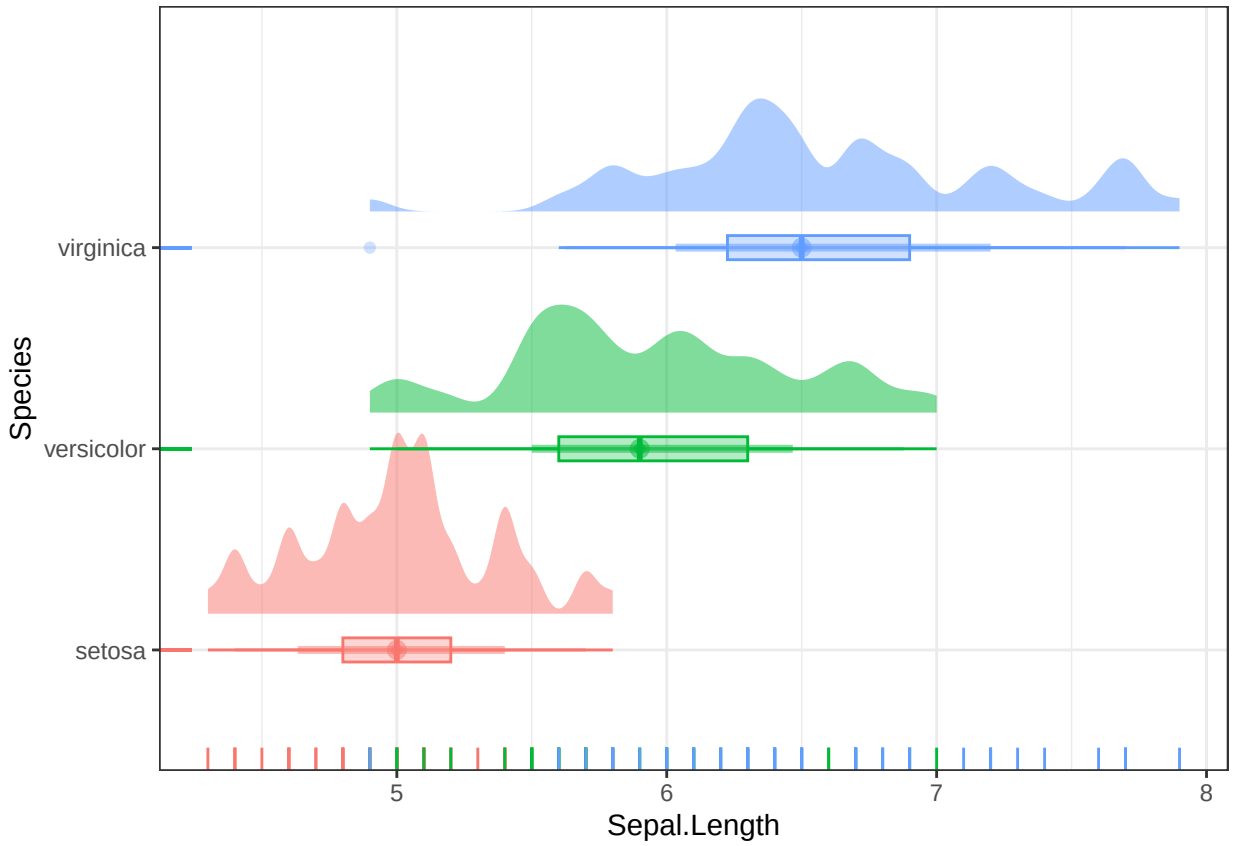

```
ggplot(iris,aes(Species,Sepal.Length,fill=Species,color=Species))+
  stat_halfeye(alpha=0.3,justification=-0.2)+
  geom_boxplot(width=0.12,alpha=0.3)+
  geom_beeswarm()+
  coord_flip()+
  theme_bw()+
  theme(legend.position = "none")
```




```
ggplot(iris,aes(Species,Sepal.Length,fill=Species,color=Species))+
  stat_halfeye(alpha=0.5,justification=-0.2, adjust=0.3)+
  geom_boxplot(width=0.12,alpha=0.3)+
  geom_jitter(position=position_jitter(width=0.12))+
  coord_flip()+
  theme_bw()+
  theme(legend.position = "none")
```




```
ggplot(iris,aes(Species,Sepal.Length,fill=Species,color=Species))+
  stat_halfeye(alpha=0.5,justification=-0.2, adjust=0.3)+
  geom_boxplot(width=0.12,alpha=0.3)+
  geom_rug()+
  coord_flip()+
  theme_bw()+
  theme(legend.position = "none")
```


Species
virginica
versicolor
setosa
5
6
7
8
Sepal.Length