Setup

To be able to run this code, be sure to have the tidyverse installed. The {wesanderson} package contains beautiful palettes for visualizations.

```
# Load required packages
library(tidyverse)
library(wesanderson)
```

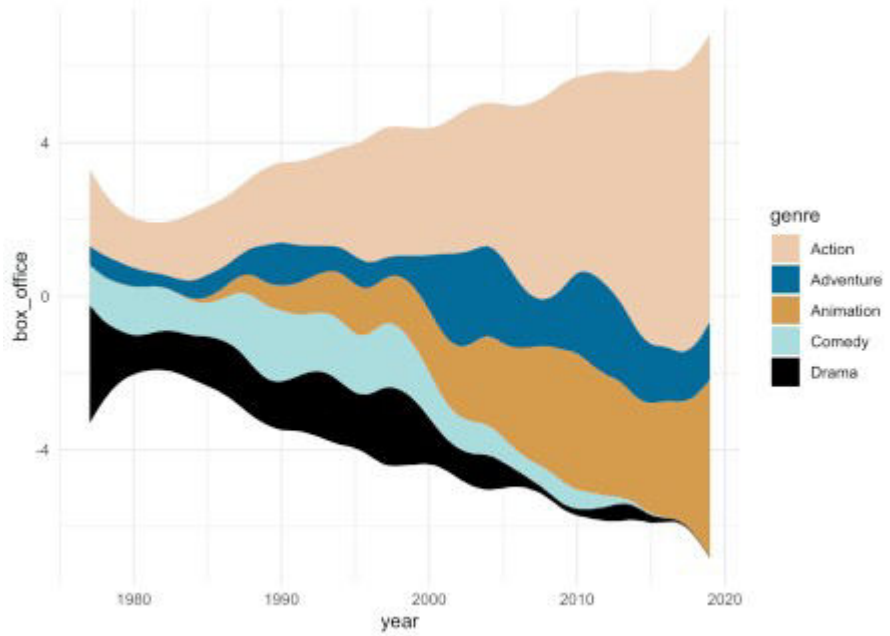
Streamgraphs

This post includes three of David Sjöberg's amazing geoms; he created {ggsankey}, {ggstream}, AND {ggbump}. If you haven't seen his GitHub, please check it out now.

This first geom, `geom_stream()`, creates a streamplot (which I've also seen called stream graphs). The streamplot is an area graph that usually centers around a central axis and allows us to see large fluctuations over time. More information on streamplot can be found here.

{ggstream} also has other options available to customize the streamgraphs, such as creating an area chart. Check out the repo here.

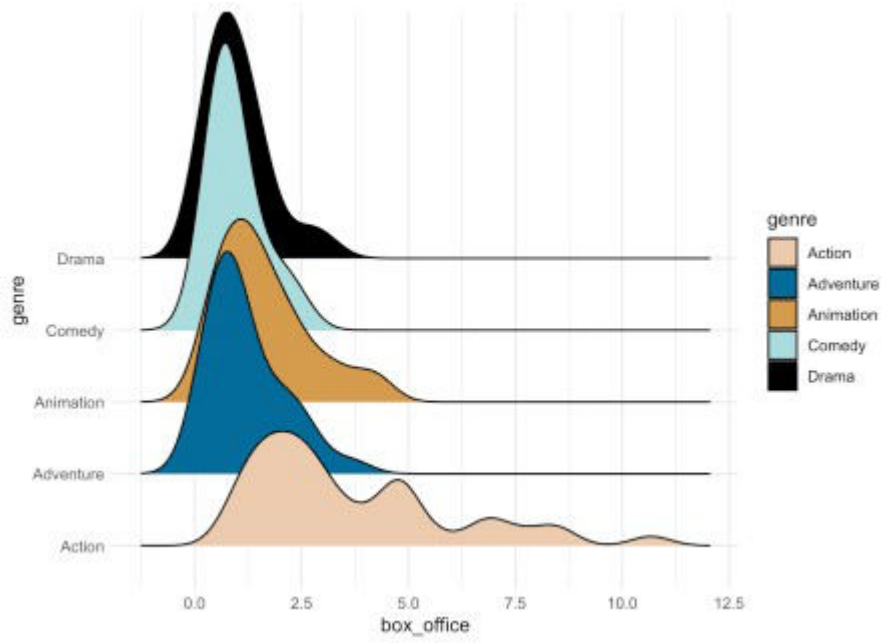
```
# remotes::install_github("davidsjoberg/ggstream")
library(ggstream)
ggplot(blockbusters, aes(year, box_office, fill = genre)) +
geom_stream() +
scale_fill_manual(values = wes_palette("Darjeeling2")) +
theme_minimal()
```



Ridgeline Plots

The {ggridges} package by Claus O. Wilke package also has a variety of geoms; check out the repo here. Ridgeline plots show the distribution of a numeric value for different groups and can look like mountain ranges. The R-Ladies Seattle hex sticker was created using ridgelines (very appropriate for the mountainous Washington!).

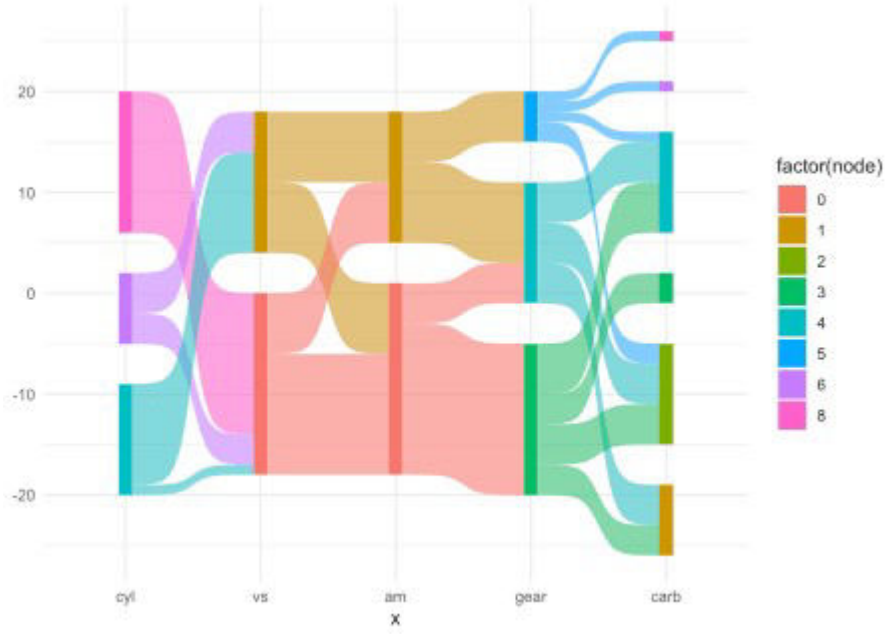
```
# install.packages("ggridges")
library(ggridges)
ggplot(blockbusters, aes(x = box_office, y = genre, fill = genre)) +
geom_density_ridges(scale = 4) +
scale_fill_manual(values = wes_palette("Darjeeling2")) +
theme_minimal()
```



Sankey Diagrams

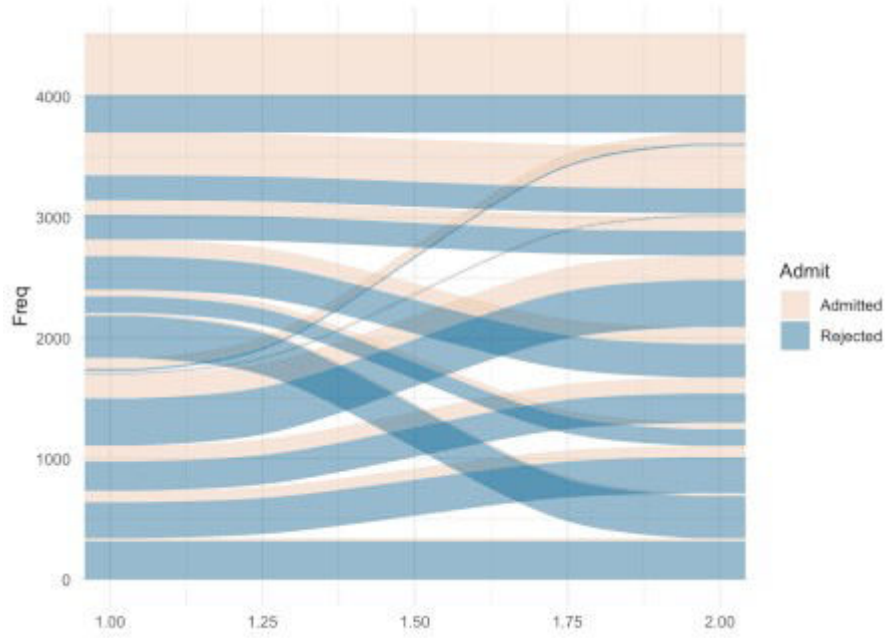
Another geom by David Sjöberg is `geom_sankey()`, repo here. This geom creates Sankey diagrams and alluvial plots, which show flow and transfers in a system or throughout time. These plots are VERY popular on the subreddit dataisbeautiful (check it out on Mondays to see some examples).

```
# devtools::install_github("davidsjoberg/ggsankey")
library(ggsankey)
example_dat <-
mtcars %>%
make_long(cyl, vs, am, gear, carb) # function in ggsankey to format
data correctly
ggplot(example_dat,
aes(x = x,
next_x = next_x,
node = node,
next_node = next_node,
fill = factor(node))) +
geom_sankey(flow.alpha = .6) +
theme_minimal()
```



Another package for alluvial charts is {ggalluvial} by Jason Cory Brunson, with its repo here. The data can be in more familiar formats than what is required for {ggsankey}.

```
# install.packages("ggalluvial")
library(ggalluvial)
ggplot(as.data.frame(UCBAdmissions),
aes(y = Freq, axis1 = Gender, axis2 = Dept)) +
geom_alluvium(aes(fill = Admit), width = 1/12) +
scale_fill_manual(values = wes_palette("Darjeeling2")) +
theme_minimal()
```

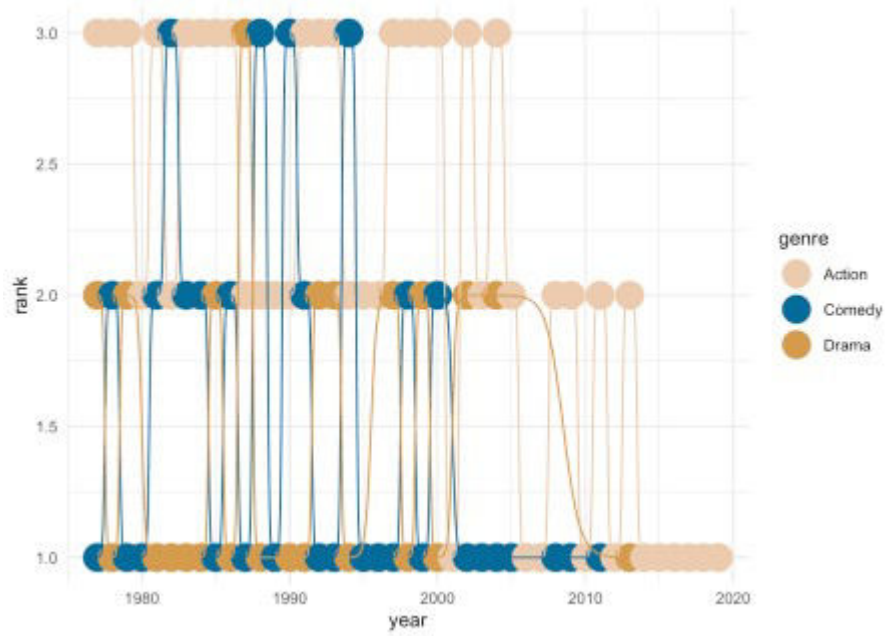


Bump Charts

One last one by David Sjöberg is the amazing {ggbump}, repo here. Bump plots are helpful for showing change in rank over time.

```
# devtools::install_github("davidsjoberg/ggbump")
library(ggbump)
```

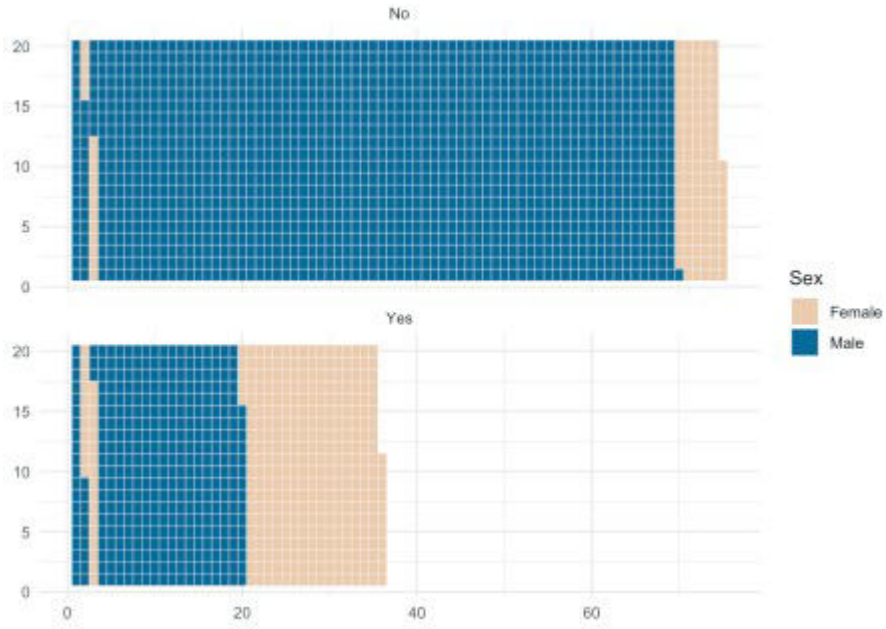
```
blockbusters2 <-
blockbusters %>%
filter(genre %in% c("Action", "Comedy", "Drama")) %>%
group_by(year) %>%
mutate(rank = rank(box_office))
ggplot(blockbusters2, aes(year, rank, color = genre)) +
geom_point(size = 7) +
geom_bump() +
scale_color_manual(values = wes_palette("Darjeeling2")) +
theme_minimal()
```



Waffle Charts

For waffle charts, which are handy visualizations that show completion or parts of a whole, there is hrbrmstr's {waffle}. The repo is here. Check out the ability to bring in other {ggplot2} functions, like `facet_wrap`. {waffle} also allows you to create pictograms using `geom_pictogram`, which replaces the squares in the 'waffle' with pictures.

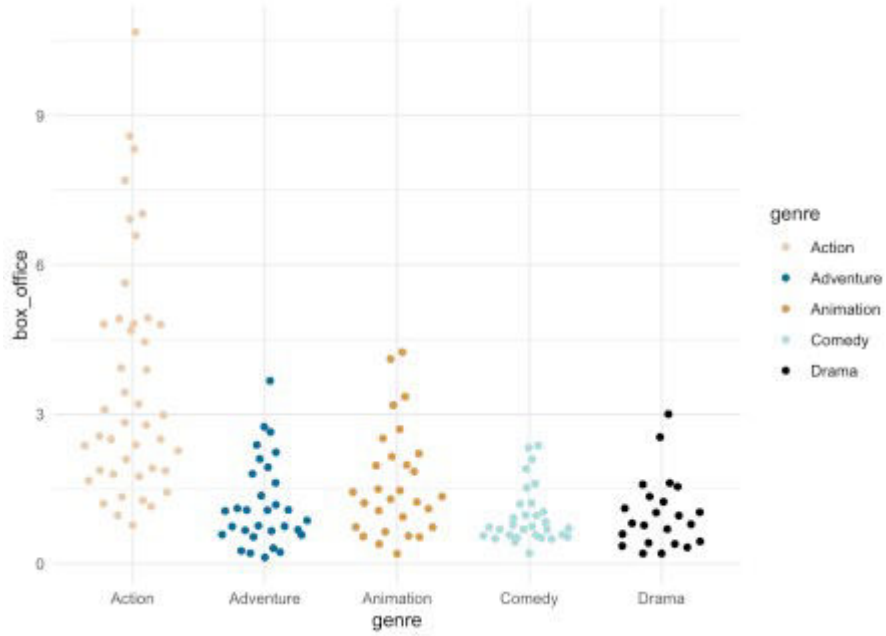
```
# install.packages("waffle", repos = "https://cinc.rud.is")
library(waffle)
ggplot(as_tibble(Titanic), aes(fill = Sex, values = n)) +
geom_waffle(n_rows = 20, color = "white") +
facet_wrap(~ Survived, ncol = 1) +
scale_fill_manual(values = wes_palette("Darjeeling2")) +
theme_minimal()
```



Beeswarm Charts

Beeswarm charts, similar to jitter plots in {ggplot2}, plot individual points showing distributions without allowing the points to overlap too much. Erik Clarke's repo for {ggbeeswarm} is here.

```
# install.packages("ggbeeswarm")
library(ggbeeswarm)
ggplot(blockbusters, aes(x = genre, y = box_office, color = genre)) +
geom_quasirandom() +
theme_minimal() +
scale_color_manual(values = wes_palette("Darjeeling2")) +
theme_minimal()
```



Mosaic Charts

Mosaic charts are incredibly helpful when displaying proportions of (multiple) categories. The {ggmosaic} package by Haley Jeppson (repo here) uses `geom_mosaic` to create these

visualizations.

```
# devtools::install_github("haleyjeppson/ggmosaic")
library(ggmosaic)
ggplot(as.data.frame(UCBAdmissions)) +
geom_mosaic(aes(x = product(Admit, Dept), fill = Gender, weight =
Freq)) +
scale_fill_manual(values = wes_palette("Darjeeling2")) +
theme_minimal()
```