**EXTRA CREDIT: GGPLOT2 EXTENSIONS**

**Instructions**

1. Upload your write-up as a PDF or HTML document on Canvas.
2. Write-ups should not exceed 750 words.

**Description**

One of the amazing things about ggplot2’s design is that it makes it easy to create new packages that build on top of it. We have already seen a few of these in class, e.g., ggridges, patchwork, and ggraph. Since the extensions share fundamental concepts with ggplot2, they are often easy for new users to pick up. Nonetheless, these extensions cover a very wide range of use cases, ranging from visual encodings adapted to specific application domains to new collections of custom themes.

In this extra credit exercise, you will study, reflect upon, and prepare an example using a ggplot2 extension package. You may pick any extension discussed in these sources:

* <https://exts.ggplot2.tidyverse.org/gallery/>
* <https://z3tt.github.io/exciting-extensions/slides.html>
* <https://github.com/erikgahner/awesome-ggplot2> (only packages)

The only exceptions are packages that have already been discussed in class. Your write-up should have two main parts. The first part should summarize the extension package. You should describe the package’s motivation and core functionality. In the second part, you should provide an illustrative example of how the package can be used. You can model this part off the problems in the exercise sheet/the in-class demos. You may use any dataset, including those from previous homework submissions or which appear in our notes/exercises. However, you may not copy an example from the package documentation or an existing online example.

Aside: I’m not familiar with most of these packages. Find something that you think is cool and teach me something!

**Rubric**

This assignment can provide up to 5 points of extra credit in the homework category.

*Discussion Quality* [2 points]: The report demonstrates careful study of the chosen package and is written in a precise yet easy-to-follow way.

*Example Depth* [3 points]: The illustrative example is a creative application of the chosen package. The results are useful, difficult to implement without the package, and would convince a casual reader that the package is worth learning in more detail.