

Stat 470/670 Homework 3

Due: Friday, February 3 at 5pm

Submit exactly two files: (i) a PDF/HTML file with your write-up and graphs and (ii) a .r/.txt/.Rmd file with code to reproduce your results.

1. Create a histogram on the diamonds dataset, for example with

```
ggplot() + geom_histogram(aes(x = carat), data = diamonds)
```

Re-write this using the `layer` function like we did in class. Hint: if you don't know what the default values for some of the aspects of the plot, examine `p$layers`

2. Remember that a histogram is a plot with `stat_bin` and `geom_bar`. Modify your histogram code so that it uses a different geom, for example `geom_line` or `geom_point`. This should be simple once you have the `layer` specification of a histogram.
3. In your histogram (the one plotted with bars that you created in question 1), add an aesthetic mapping from one of the factor variables (maybe `color` or `clarity`) to the `fill` or `color` aesthetic.
4. What is the default position adjustment for a histogram? Try changing the position adjustment in the histogram you created in question 3 to something different (hint: try `dodge`).