

Introduction to R

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Job Candidate

[CV](#) [Publications](#) [Working papers](#) [Teaching](#) [Contact](#)



Job Candidate

PhD candidate in
Economics

Big Ten University



Biography

Job candidate is a doctoral candidate in economics at Big Ten University. Job candidate has research interests in health and environmental economics and will be available for interviews for the 2020-2021 job market.

Interests

- Health economics
- Environmental economics

Education

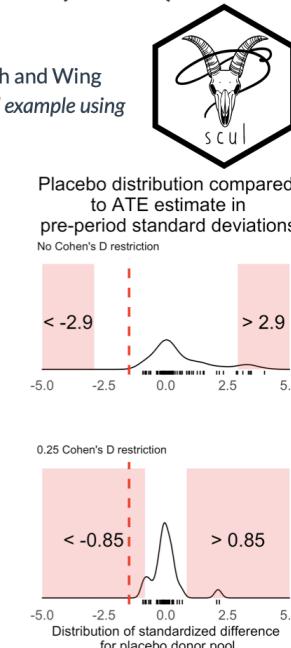
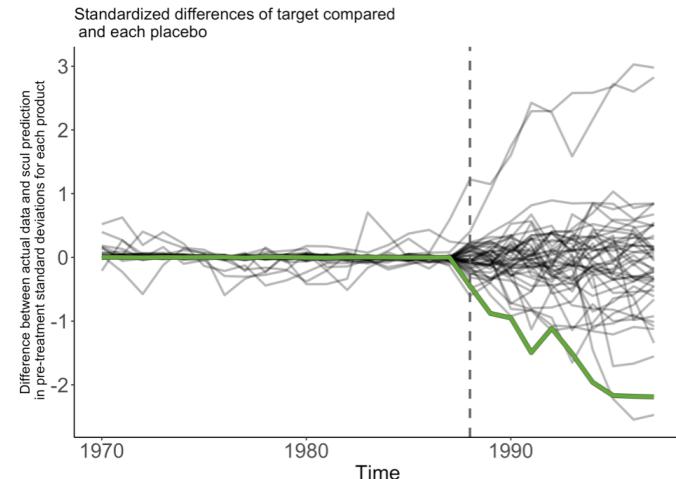
- 🎓 PhD in Economics, 2021
(Expected)
Big Ten University
- 🎓 MS in Economics, 2017
Big Ten University
- 🎓 BA in Economics, 2016
Liberal Arts College

This document was also made using R-Markdown.

scul 0.2.0.0 [Tutorial](#) [Functions](#) [Paper](#)

Synthetic Control Using Lasso (scul)

This repository contains the R package `scul` that is used in Hollingsworth and Wing (2020) "Tactics for design and inference in synthetic control studies: An applied example using high-dimensional data." <https://doi.org/10.31235/osf.io/fc9xt>



Links

Browse source code at
<https://github.com/hollina/scul/>

Report a bug at
<https://github.com/hollina/scul/issues/>

License

[Full license](#)

[MIT + file LICENSE](#)

Developers

[Alex Hollingsworth](#)

Author, maintainer

Dev status

[build](#) passing

[lifecycle](#) experimental

[License](#) MIT

Installation

```
# Install development version from GitHub (CRAN coming soon) using these two lines of code
```

Summary statistics table

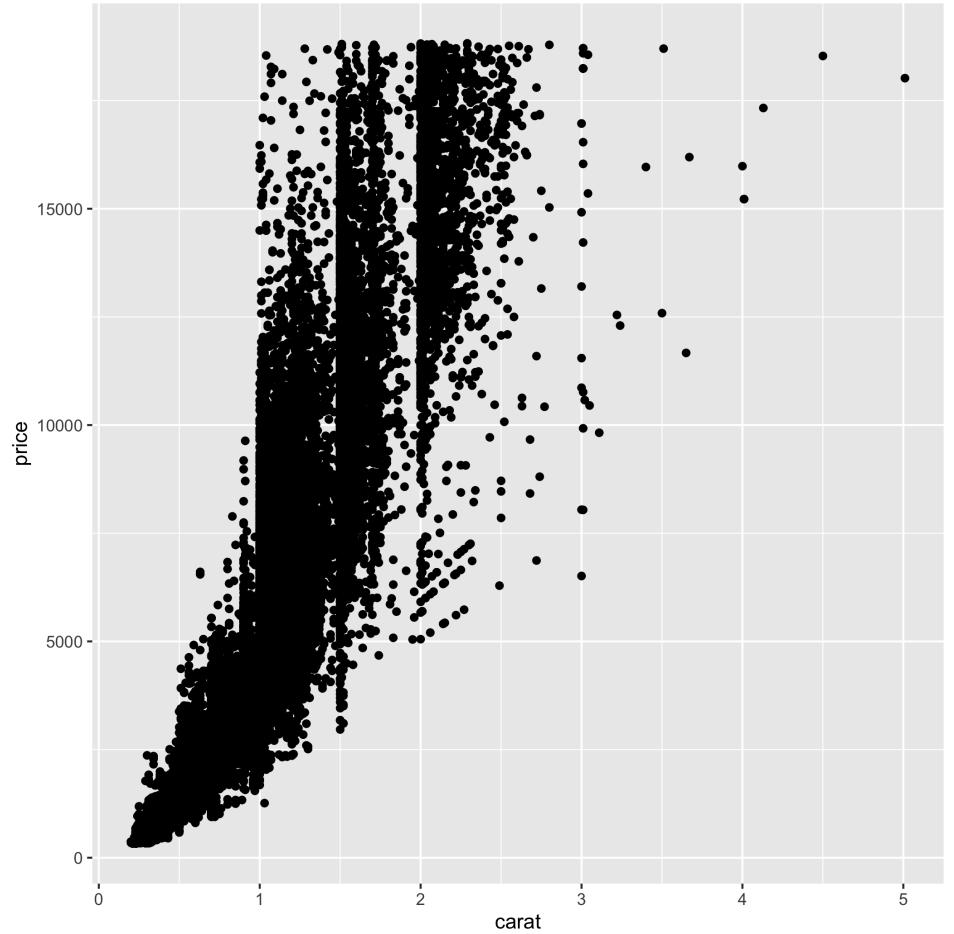
Now we can use the `datasummary_skim` function.

```
datasummary_skim(diamonds)
```

	Unique (#)	Missing (%)	Mean	SD	Min	Median	Max	
carat	273	0	0.8	0.5	0.2	0.7	5.0	
depth	184	0	61.7	1.4	43.0	61.8	79.0	
table	127	0	57.5	2.2	43.0	57.0	95.0	
price	11602	0	3932.8	3989.4	326.0	2401.0	18823.0	
x	554	0	5.7	1.1	0.0	5.7	10.7	
y	552	0	5.7	1.1	0.0	5.7	58.9	
z	375	0	3.5	0.7	0.0	3.5	31.8	

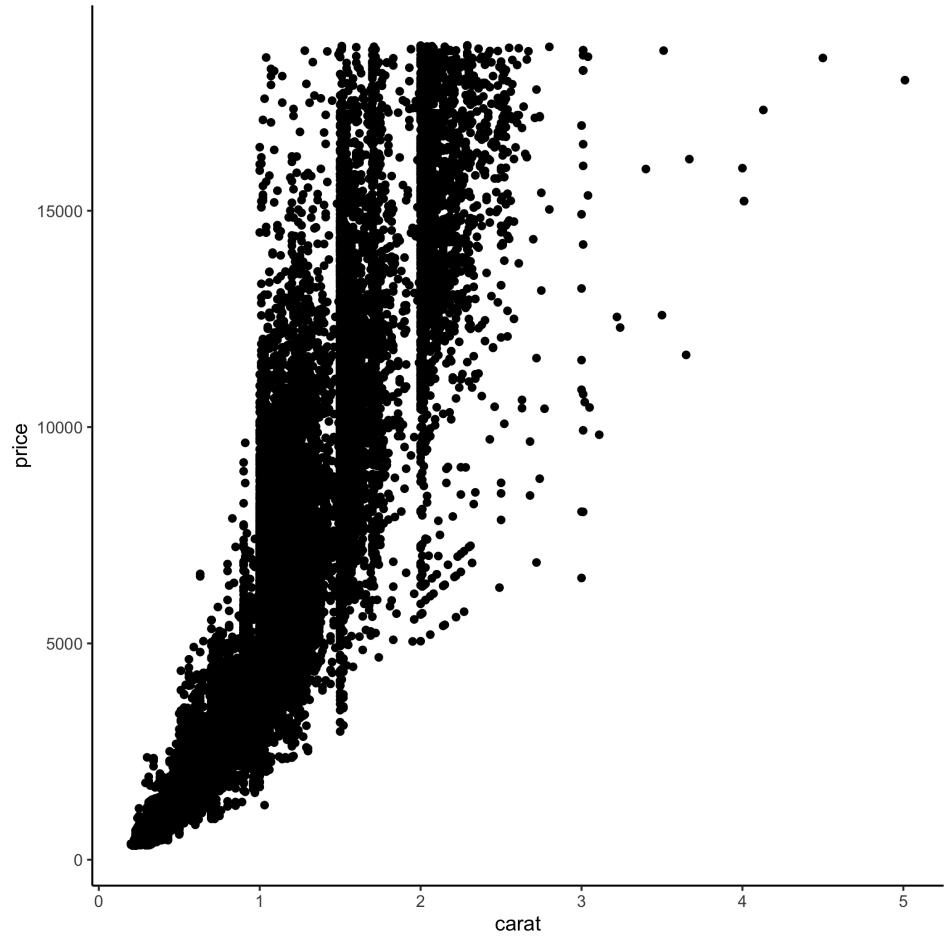
Graphing

```
ggplot(data = diamonds, aes(y = price, x = carat))  
  geom_point()
```



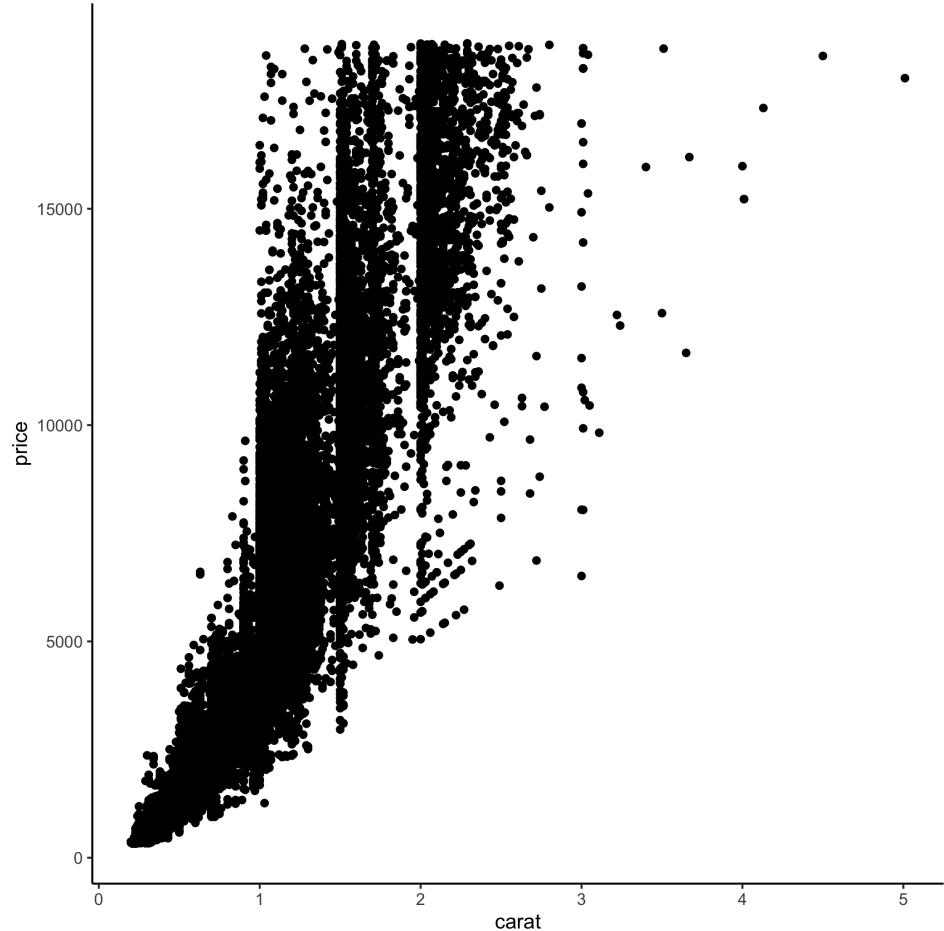
Graphing

```
ggplot(data = diamonds, aes(y = price, x = carat)) +  
  geom_point() +  
  theme_classic()
```



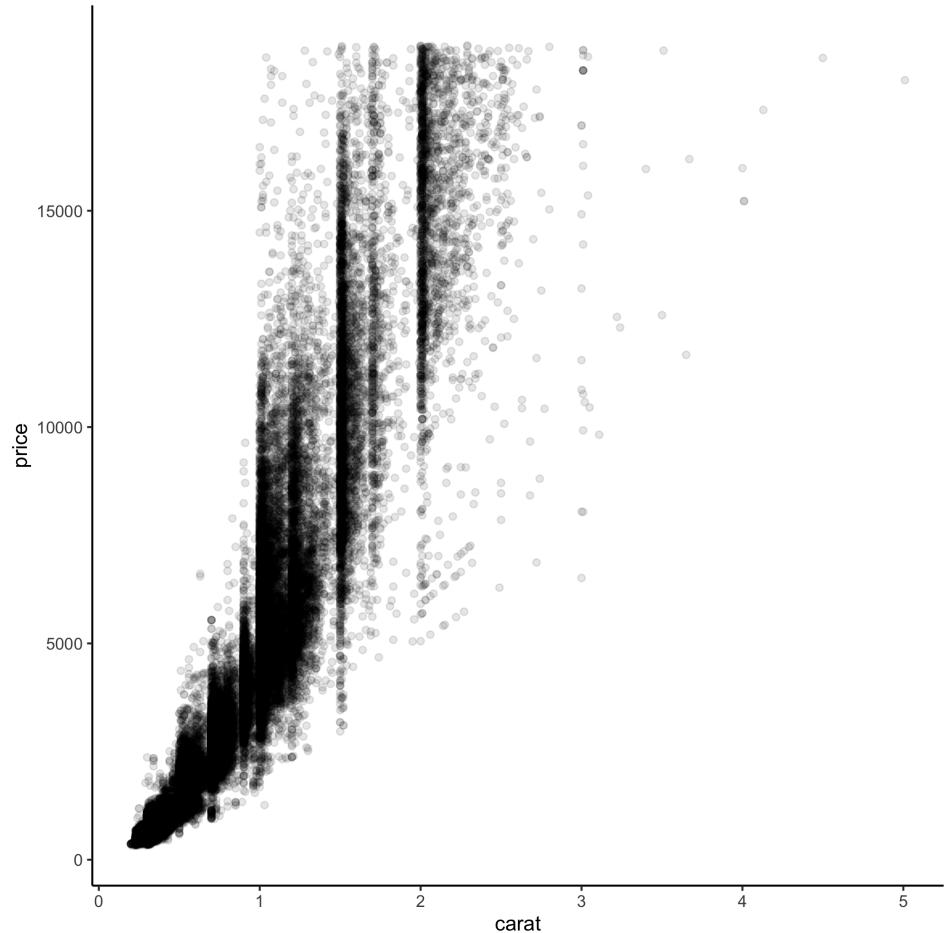
Graphing

```
base_plot = ggplot(data = diamonds, aes(y =  
    geom_point()  
  
base_plot +  
    {{theme_classic()}}}
```



Graphing

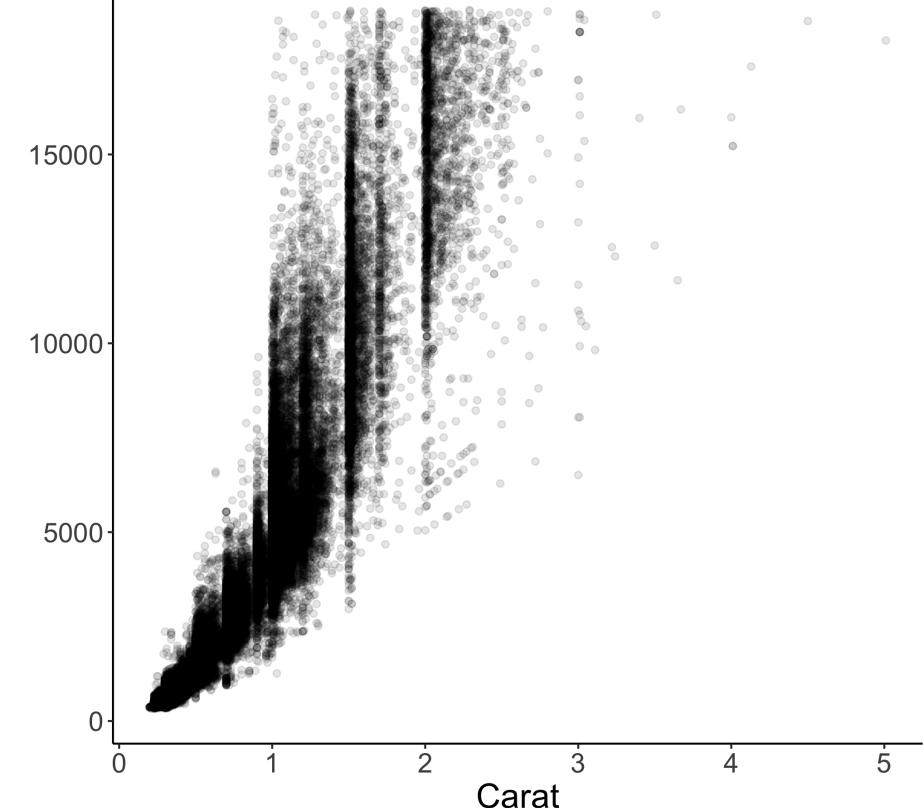
```
ggplot(data = diamonds, aes(y = price, x = carat)) +  
  geom_point(alpha = .1) +  
  theme_classic()
```



Graphing

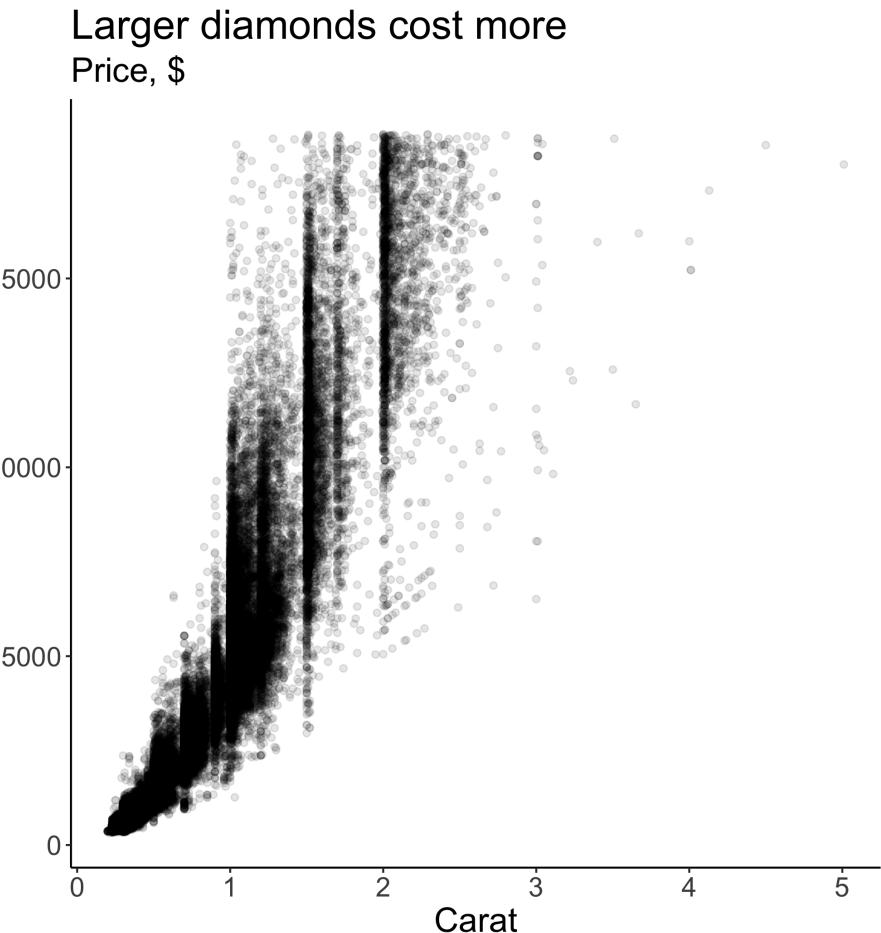
```
ggplot(data = diamonds, aes(y = price, x = carat)) +  
  geom_point(alpha = .1) +  
  theme_classic() +  
  theme(text = element_text(size = 18)) +  
  labs(title = "Larger diamonds cost more",  
       subtitle = "Price, $",  
       y = "",  
       x = "Carat")
```

Larger diamonds cost more
Price, \$



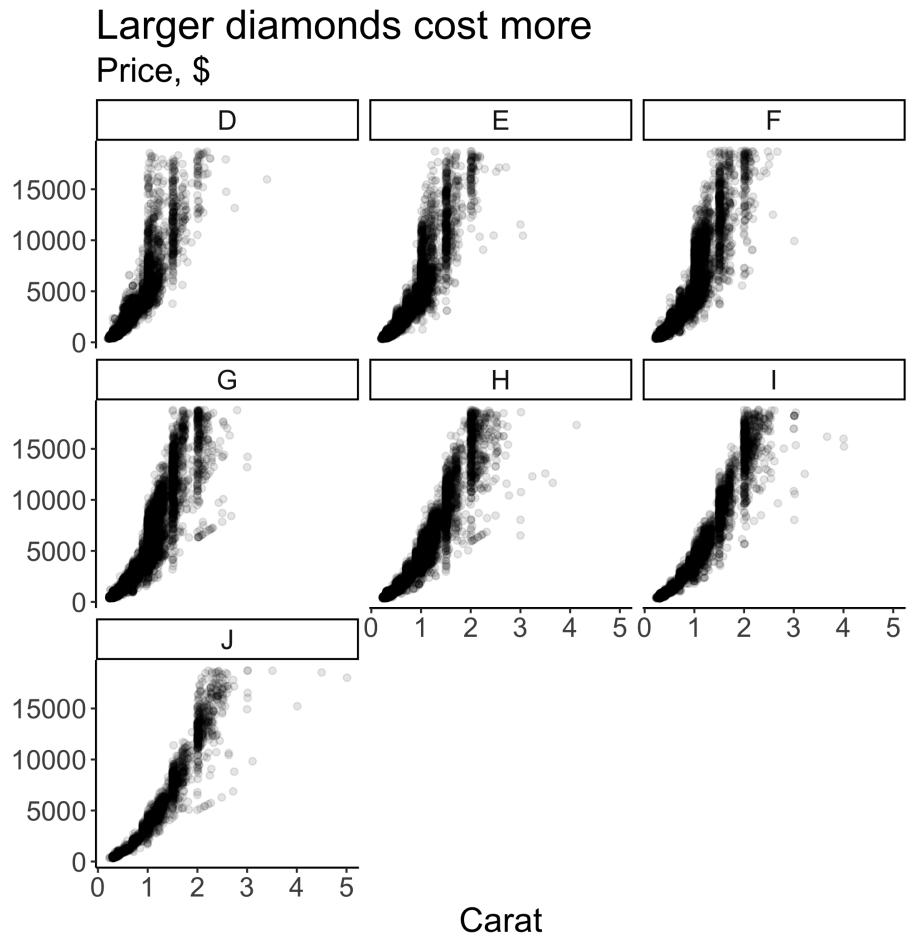
Graphing

```
ggplot(data = diamonds, aes(y = price, x = carat)) +  
  geom_point(alpha = .1) +  
  theme_classic() +  
  theme(text = element_text(size = 18)) +  
  labs(title = "Larger diamonds cost more",  
       subtitle = "Price, $",  
       y = "",  
       x = "Carat")
```



Graphing

```
ggplot(data = diamonds, aes(y = price, x = carat)) +  
  geom_point(alpha = .1) +  
  facet_wrap(~color) +  
  theme_classic() +  
  theme(text = element_text(size = 18)) +  
  labs(title = "Larger diamonds cost more",  
       subtitle = "Price, $",  
       y = "",  
       x = "Carat")
```

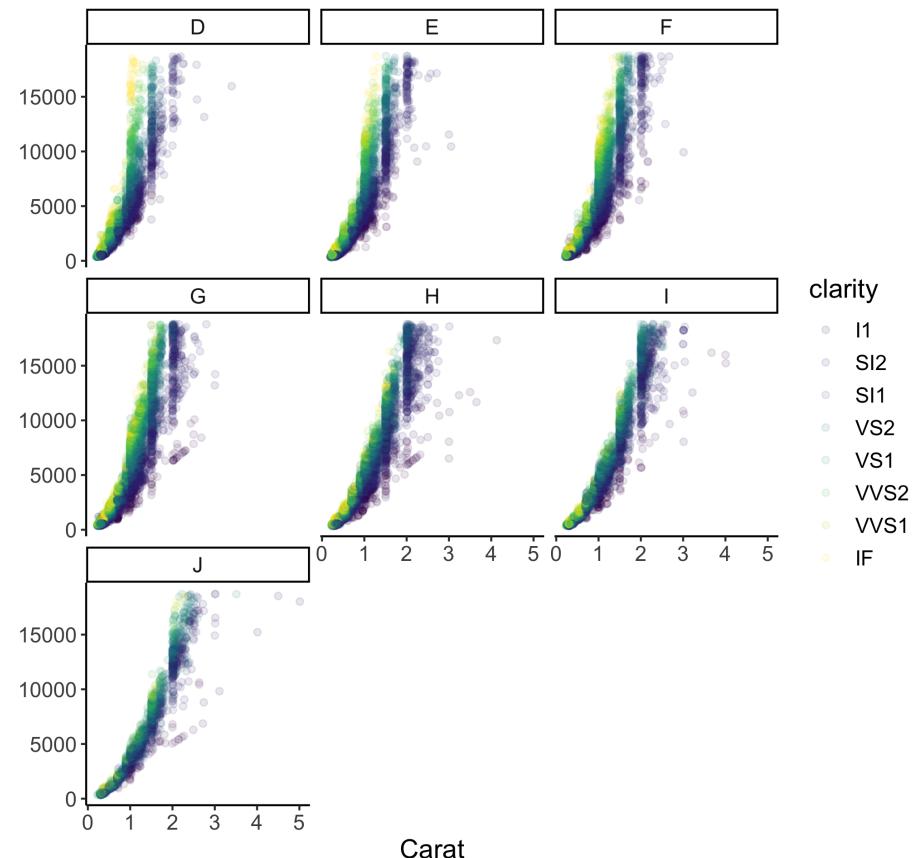


Graphing

```
ggplot(data = diamonds, aes(y = price, x = carat)) +  
  geom_point(alpha = .1) +  
  facet_wrap(~color) +  
  theme_classic() +  
  theme(text = element_text(size = 14)) +  
  labs(title = "Larger diamonds cost more",  
       subtitle = "Price, $",  
       y = "",  
       x = "Carat")
```

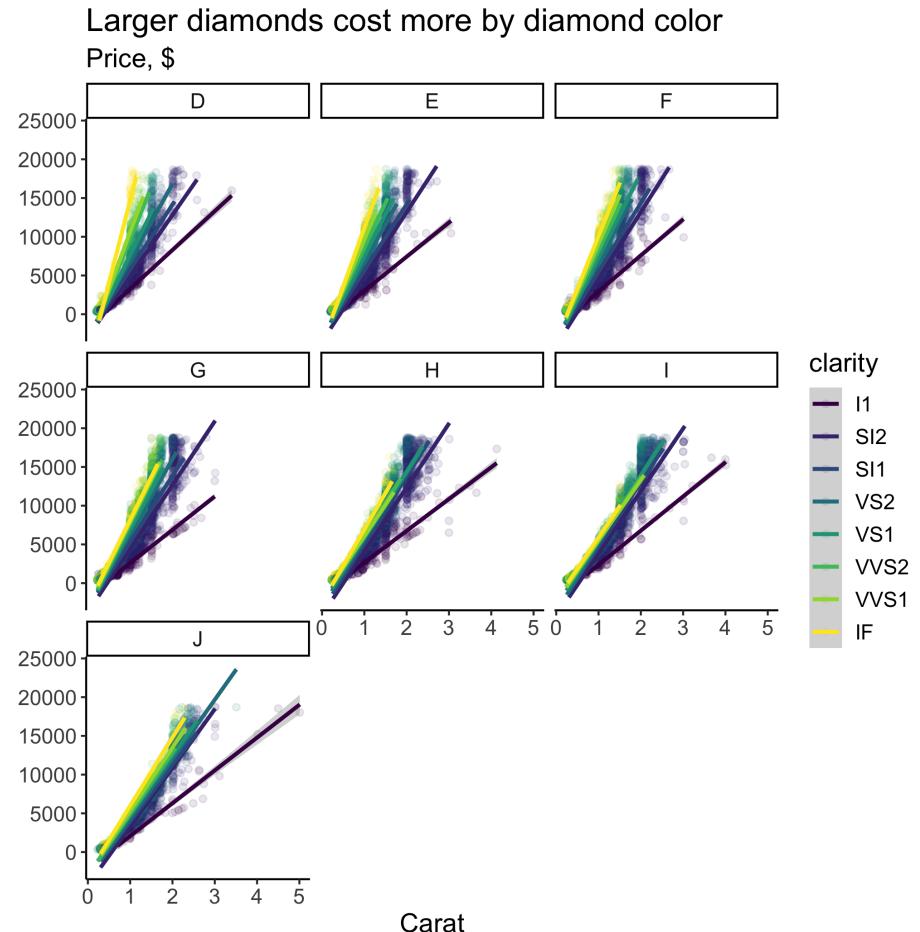
Larger diamonds cost more by diamond color

Price, \$



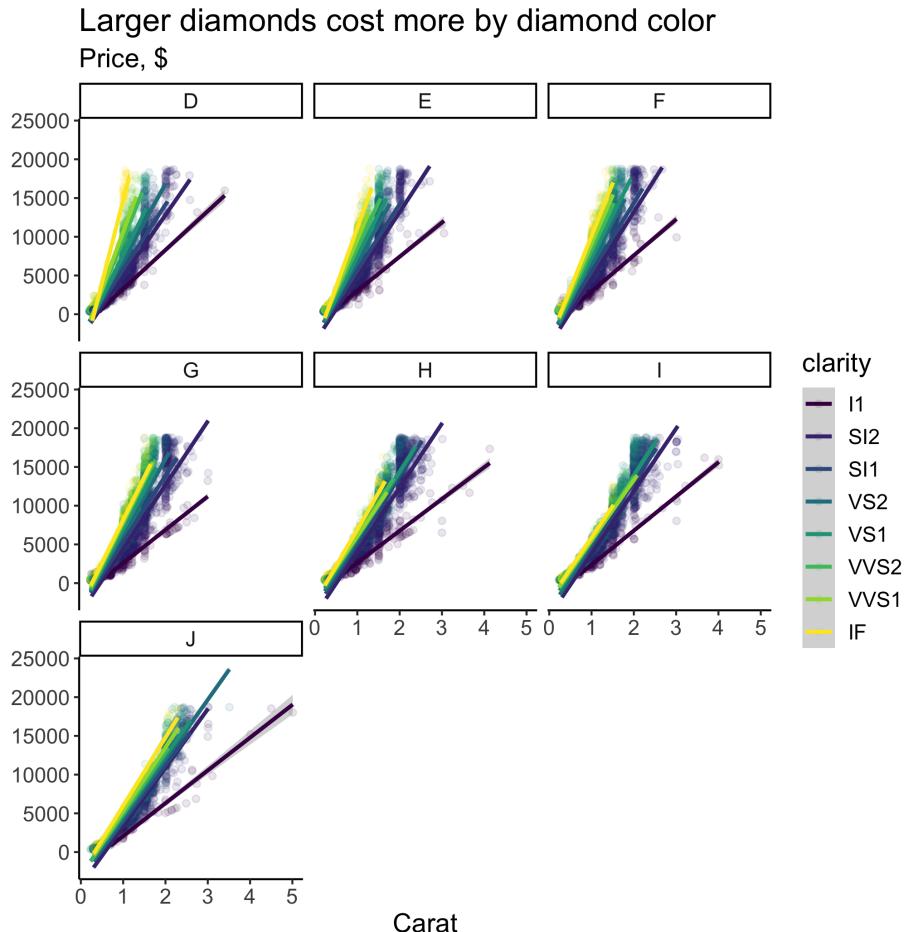
Graphing

```
ggplot(data = diamonds, aes(y = price, x = carat)) +  
  geom_point(alpha = .1) +  
  facet_wrap(~color) +  
  geom_smooth(method = "lm") +  
  theme_classic() +  
  theme(text = element_text(size = 14)) +  
  labs(title = "Larger diamonds cost more",  
       subtitle = "Price, $",  
       y = "",  
       x = "Carat")
```



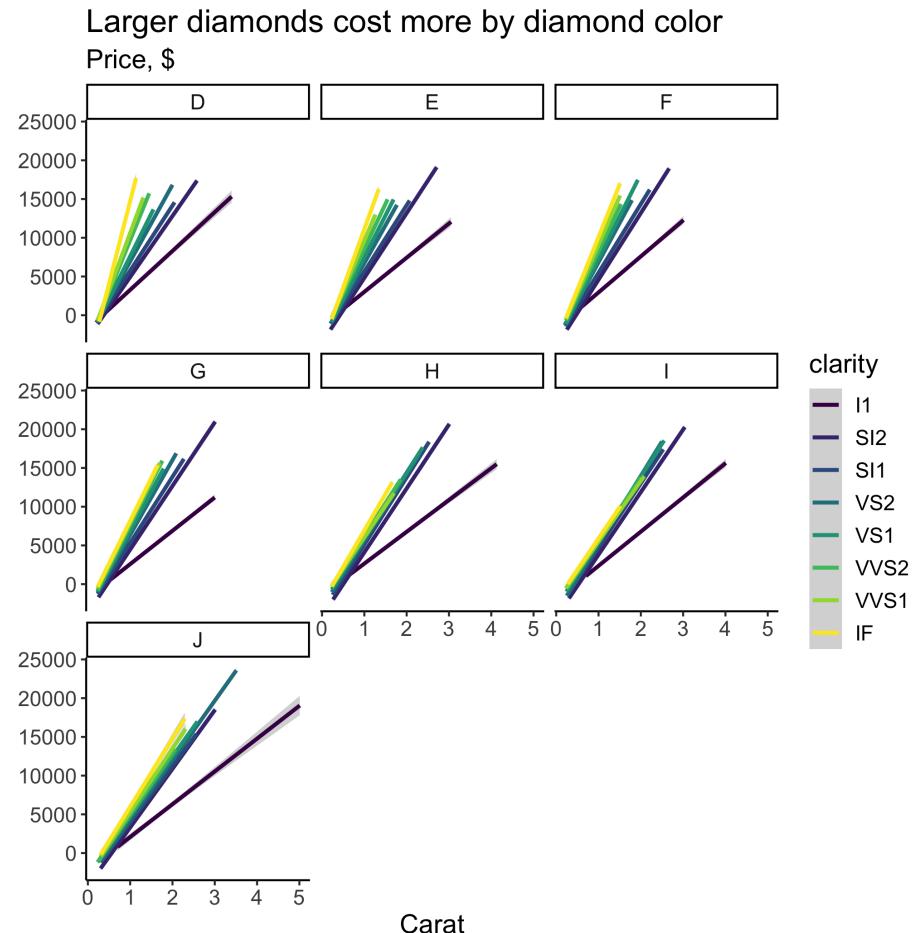
Graphing

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ggplot(data = diamonds, aes(y = price, x = carat)) +  
  geom_point(alpha = .1) +  
  facet_wrap(~color) +  
  geom_smooth(method = "lm") +  
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  theme(text = element_text(size = 14)) +  
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       subtitle = "Price, $",  
       y = "",  
       x = "Carat")
```



Graphing

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ggplot(data = diamonds, aes(y = price, x = carat)) +  
  facet_wrap(~color) +  
  geom_smooth(method = "lm") +  
  theme_classic() +  
  theme(text = element_text(size = 14)) +  
  labs(title = "Larger diamonds cost more",  
       subtitle = "Price, $",  
       y = "",  
       x = "Carat")
```

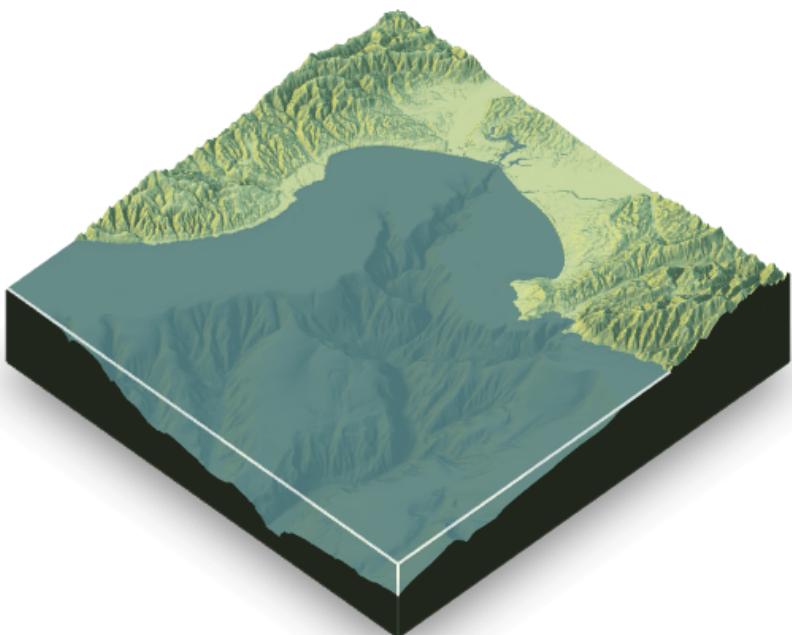


Let's switch over to an R-Markdown document

Also look. Some latex

$$f(x) = \frac{1}{\sigma\sqrt{2\pi}} \exp\left(-\frac{1}{2} \left(\frac{x - \mu}{\sigma}\right)^2\right)$$

And oh yea, this was made in R too.



- Check out `rayshader` if you want to make your own awesome map, 2D, and 3D visualization.
- Source of image:
<https://wcmbishop.github.io/rayshader-demo/>