

Python

Clark  
Fitzgerald

# Data Mining with Python

Most of the work is in preparing the data

Clark Fitzgerald

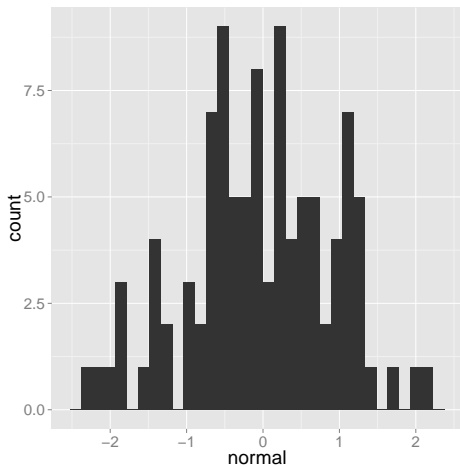
Cisco Systems

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# Statisticians *love* data visualizations

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# This is the second slide

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Here is where I would write a bunch of text. Visit the course website

## Summary

Programming is super fun.

# Powerpoints should always contain $n$ bullet points

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- Bullet 1
- Bullet 2
- ...
- Bullet  $n$

# Makefile in progress here!

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```
1 # could make a figures directory
2 # figs := $(wildcard figs/*.pdf)
3
4
5 pres.pdf : pres.tex figs/normal.pdf
6     pdflatex pres.tex
7
8 figs/normal.pdf : normal.R
9     R CMD BATCH --vanilla normal.R
10
11 clean :
12     rm *.aux *.log *.nav *.out *.snm *.toc *.Rout
~
~
```

This is a screenshot, a PNG file.

# Evolving Makefile contents

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```
pres.pdf : pres.tex figs/normal.pdf
    pdflatex pres.tex
```

```
figs/normal.pdf : normal.R
    R CMD BATCH --vanilla normal.R
```

```
clean :
    rm *.aux *.log *.nav *.out *.snm *.toc *.Rout
```

# Evolving Makefile contents

Python

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```
# Everything in the 'figs' directory  
figs := $(wildcard figs/*)
```

```
pres.pdf : pres.tex $(figs)  
    pdflatex pres.tex
```

We have gained a bit of abstraction by specifying that `pres.pdf` depends on everything in the `figs` directory.