Data Science I Syllabus Course Schedule Textbook Resources Yellowdig Get Help



Foundations of Data Science

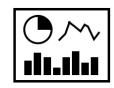


THE DATA SCIENCE "ECOSYSTEM"









Dynamics Web Applications (Dashboards)

















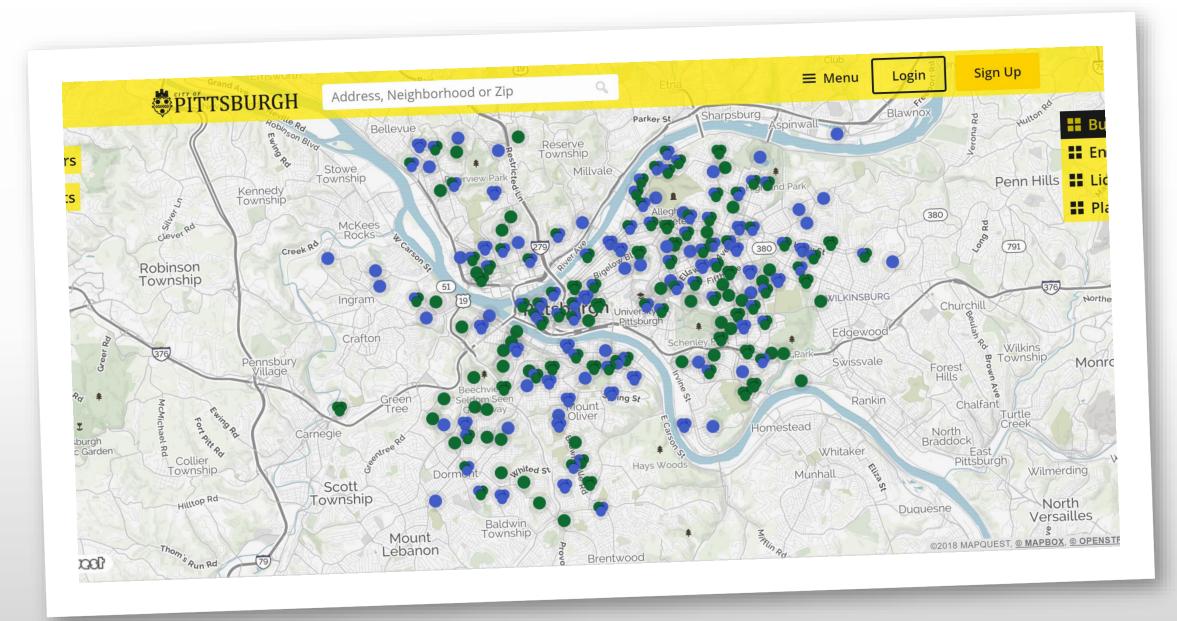
Documents



Data-Driven



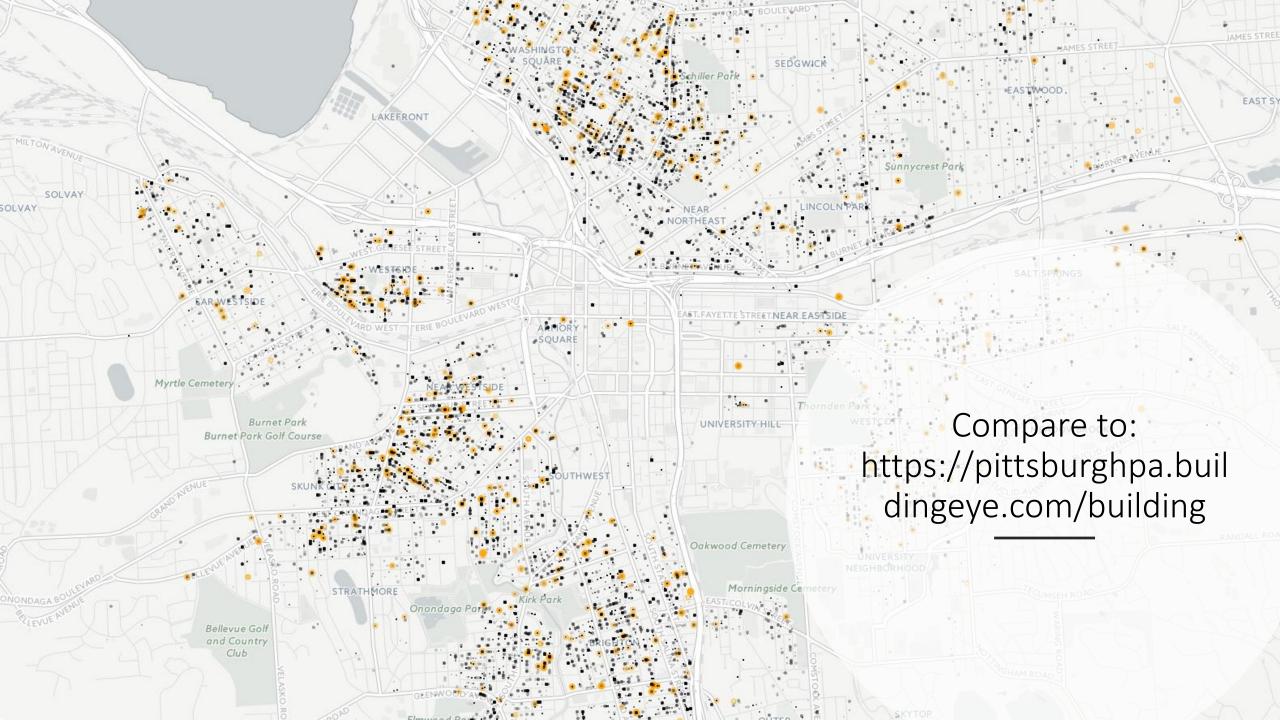
Atlas TI:	<u></u> \$700
Stata License:	\$1200
SPSS:	\$1200 - \$7800
ARCGIS:	<u></u> \$7000
R:	FREE!



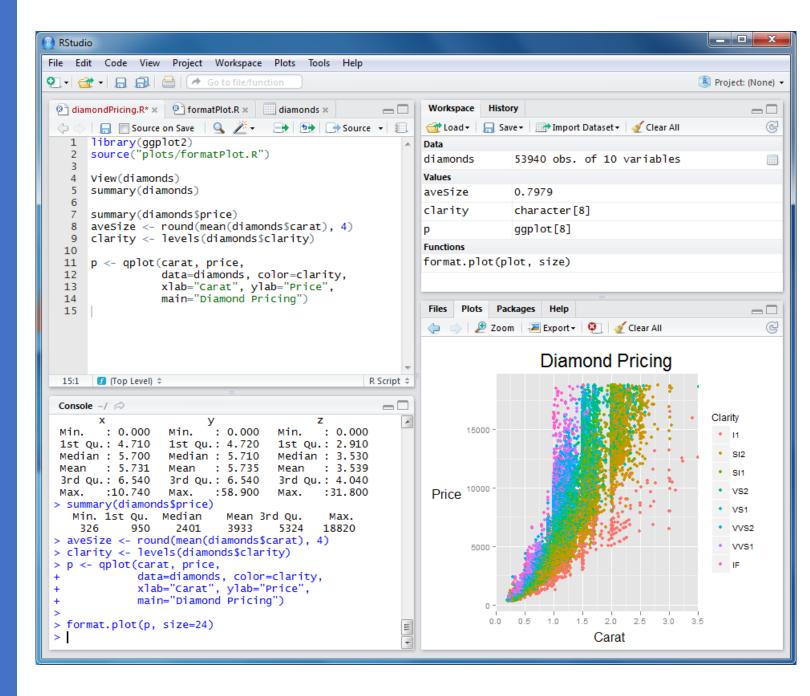
\$66,000 license per year!



(you can build a similar platform in R with 12 lines of code)



R Studio



DATA-DRIVEN DOCUMENTS

MARKDOWN



- 1. Reports [html] [pdf]
- 2. Books [link]
- 3. Presentations [<u>link</u>]
- 4. Tutorial [link]
- 5. Websites [link]
- 6. Dashboards [<u>link</u>]
- 7. Web Apps [link][link][CDC]

```
---
```

```
title: "MARKDOWN DEMO"
output: pdf_document
```

Here is the heading

Here is some text.



A sub-heading

Perhaps you want a list:

- Item 1
- Item 2

And here is some code:

```
plot( cars, col="steel blue", cex=1.5, pch=19 )
```

MARKDOWN DEMO

Here is the heading

Here is some text.

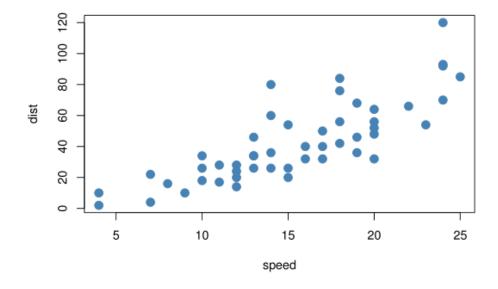
A sub-heading

Perhaps you want a list:

- Item 1
- Item 2

And here is some code:

```
plot( cars, col="steel blue", cex=1.5, pch=19 )
```



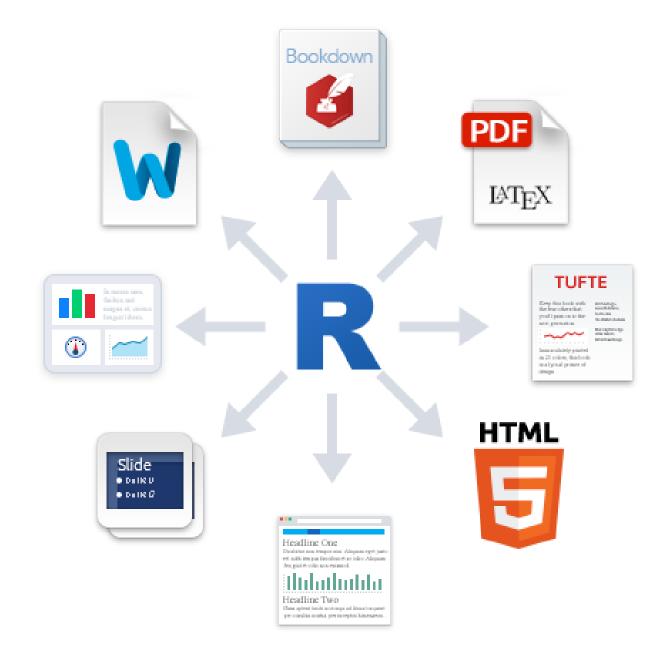


--

title: "MARKDOWN DEMO"
output: pdf_document

output: html_document

output: flexdashboard::flex_dashboard:



(7) GitHub

EXAMPLE LABS

In Majors, a Swing and a Mystery



Critical of the Tigars in the American Line (Critical Care Distance and the algoryte of the means who terred out of the 15 Miller and the American Line (Critical Care Distance and the American Care Distance and the Am

the to simpledy's during securiting difference."

Resource continued: "Pass are lighter; any stronger, Theories are last secure are passed and strong and stone, four four-ratios securities and the security and securities and the securities are securities. The securities are securities as securities are securities as securities and the securities are securities."

45, was the rising orderon rate was assent by becase packating. See the days when the circles were tried to and dispatterning market relatives and that asserses. In claimte, the wave politics up on staff on over the gifty with, these shall can also be developmen-

measure with Coloredo. "I was folling gops in the second of filled from a pitch. Every got on the second of filled flows go on all of for faultpear. Because its."

The is no exaggrenation, but known assess to believe it, and whose goods had the ever-siteration generalizations of Full plane, other as o

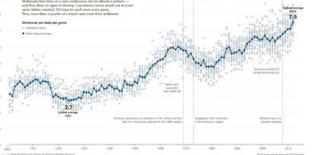
reviews for all the refellments, handle laments Manager Jack Submissions and mains were notes and more to hard to strongling starture and a referred to see if an eventy mouth and followers's Toward features' Charles and followers's Toward features as a consent to except the consent of the second seed of exception.

But specialization of the second with failure the ranges. Twoopers are when grained as

the impact. Prospects yet often gliminal arreference. Softwards said adding that around party new amounts flowed service insurge lower o week advisors. The emphasis in which golds reason as early as Little League very wife to respectifie for seadors produced and the service of the emphasis of the emphasis of developing on a later emphature. The Advisors flower change, Cong Bankons, which haven'd more likes had for features.

heavy. The Arbitrat framework chairs, Craig Simthest, edge beamed smore than half the besires he record in contrast and the state of the same of the s

Authors Freeholmen, the Tempes Buy Mayor Authors Freeholmen, the Tempes Buy Mayor general authors, the Lond phetty of votseas, force and severaging a general conductor state, while developing a general conductor through the facts systems. Like poser's Temye Bay salled force-sted development season settle-



the idea that parties a new closesing harder analys.

The gas before careful reving, Frindress and, and trailful not just by inflamed have not total more housely fringe and policies of the collection of the desired policies. In collection to their data drug was the collection of their data drug was the collection of their data drug to the collection of their data drug to the housely desired to their data of their terms of their collection of their data light the local different and different emphasisments.

or from Andrey Strage Loss.

The promise private plant of the private private state private pr

avoiding with.

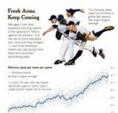
*Aggressionness is treacided to one gase
out I clinic than a good, and there's veriperson of our games where that's result stopsens. Set all a games where that's result stopsens. Set all a games where that's results and
concluse and players to figures out how to the
other questions! sealours.

gity against grathers who concurredly provide the stroke some, horsementyle, grathers are desing that better.

Wall, trials destricted in the daugent for the three laws to a row in MrJ. (dipping before 32,300 for the New Same on a mention measure and or some stroke some only the tagent,

(2000 for the first time on accordance country, according to the state of the state

"To walks are great. But if a gay's strowing it down the middle, who mans to well?" If it that,"
— for the modern timer, that is nester said than down.



Making Big Money, Finally, for Not Striking Out

The acceptance of strikeouts as a necessary byproduct of production is now ingrained. GLEPOALE, Area, — ANY Keppenger playing for the univestil-maps insign teach it years. Not has server resched double uses in facile rises or intrincipate, has no placed in the prestrusion and has every omes, played on more than a new searthest. The situ almost sever tribes out, in an whose his provis der leaening at an unique whose his provis der leaening at an unique.

which is previous limited at on contract with the contract of the

as one matter that mandy has increasingly addition thereign concern.

These brinks of gapts exceed time and fiftee pattern from an and Time pattern from a first pattern from a first pattern from a first and a first pattern from a gapt ap has return, we as nearly a first pattern from a gapt ap has returning position to an of a or factor. Secondary, when there is no a gapt ap has returning position to an of a or factor. Secondary, when there is no a gapt ap has returning position to a gapt ap has returned to a gapt and a gapt appears and a gapt ap has returned to a gapt appears and a gapt appears a gapt appears a gapt appears a gapt appears and a gapt appears a gapt appear a gapt appears a gapt a gapt

and age of the control of a software, or we haveled to be as the as the control of a software Southeam, who change of a software Southeam, who change is a software Southeam, who can be a software Southeam, who can be a software Southeam, who can be a software Southeam Sout

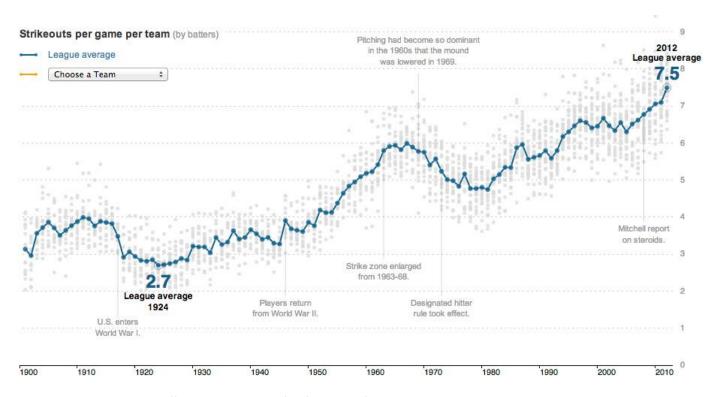
the bitting reach Corest Einstein Immunity
lite reach period and per series
lite reach period and per series
literative series, feeling from self interes
literative series, from self interes
literative series, from self interes
literative series, from self interes
literative

An office the control of the control

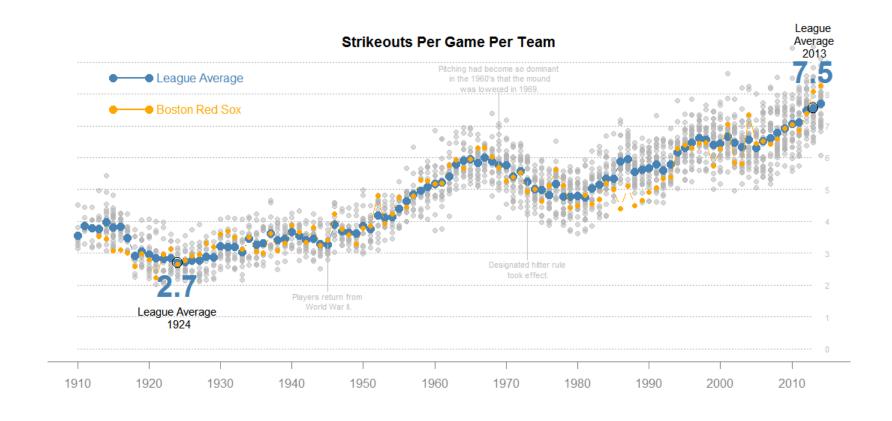
Jell Reppinger, with one of the lowest strikered store in baseball, signed a the \$12 million-shal with the White Sox, He had cover feel more than a one-year



FROM THE NYT

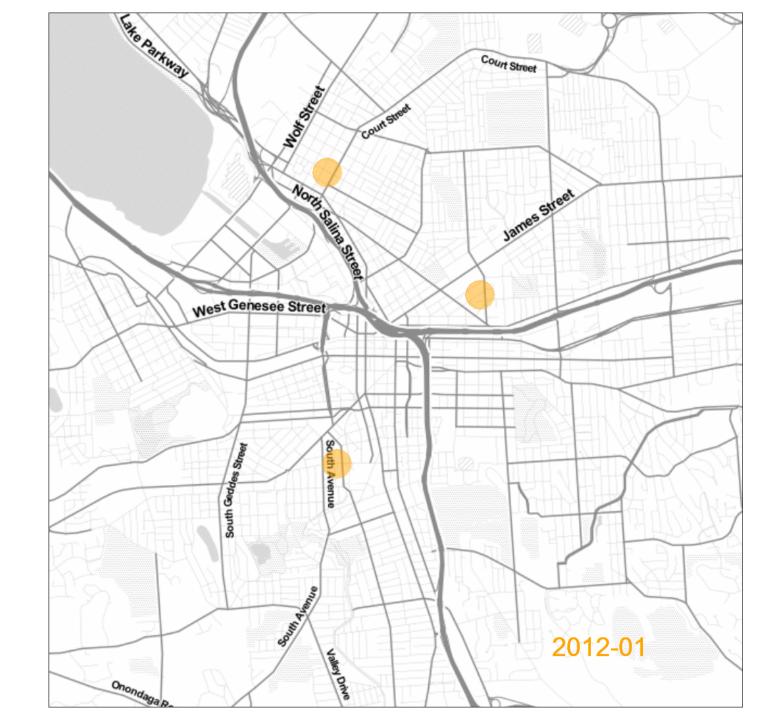


FROM A CLASS ASSIGNMENT



ANIMATIONS

BED BUG CASES IN SYRACUSE, NY 2012-2016



PROGRAM DESIGN

ONE YEAR SCHEDULE

SEMESTER 1

Α

Program Eval 1

Data Science 1

SWK 623 - Eval

Data Practicum

SEMESTER 2

Program Eval 2

Data Science 2

Program Eval 3

Data Science 3

SEMESTER 3

Capstone (3 credits, 15 weeks)

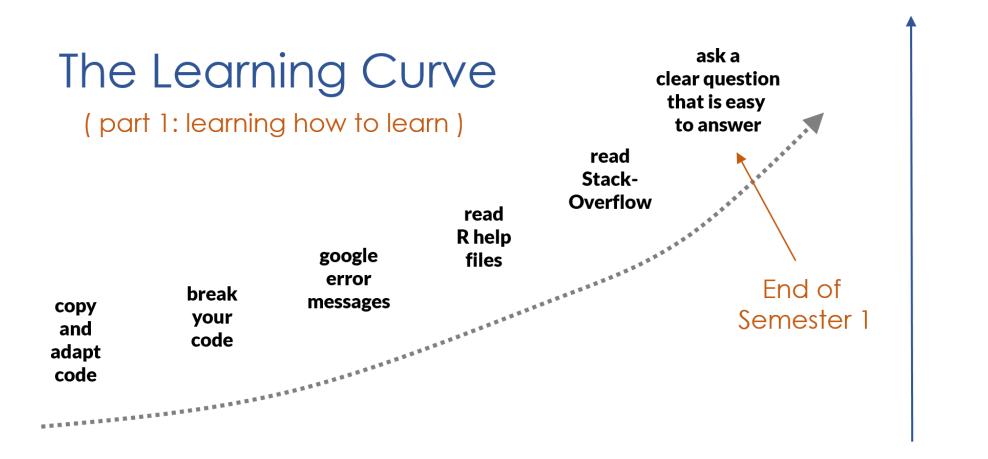
Elective

Elective

THE LEARNING CURVE

CPP 526 → PRACTICUM → CPP 527 → CPP 528

Data Science Skill Level



"VERBS AND NOUNS"


```
makeCookies <- function( flour, eggs, sugar )
{
  batter <- mix( flour, eggs, sugar )
  cookies <- bake( batter, temp=400 )
  return( cookies )
}</pre>
```

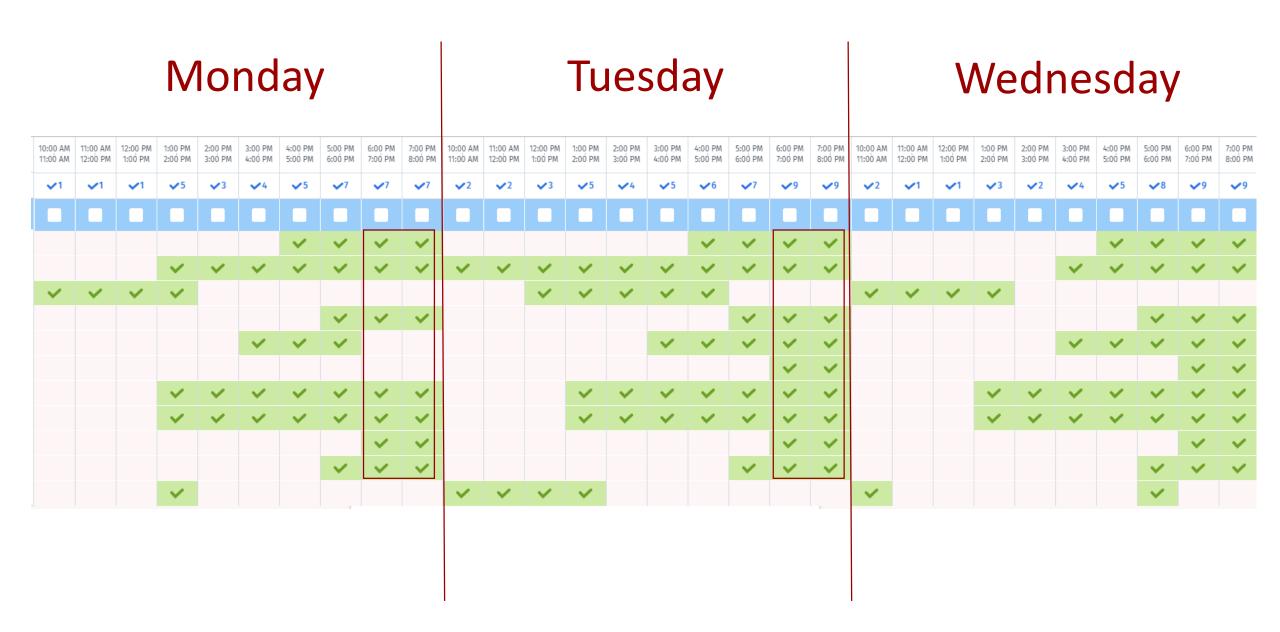
return value (function output)

GETTING HELP

GETTING HELP (20 MINUTE RULE)

- Work in groups
- Google errors read StackOverflow question about functions
- Post questions to GitHub
 question about labs
- Attend review sessions
- Schedule office hours

REVIEW SESSIONS



GRADES

GRADES

• 60% Labs (weekly - pass/fail)

• 10% Discussions - YellowDig

• 30% Final Project - Dashboard

