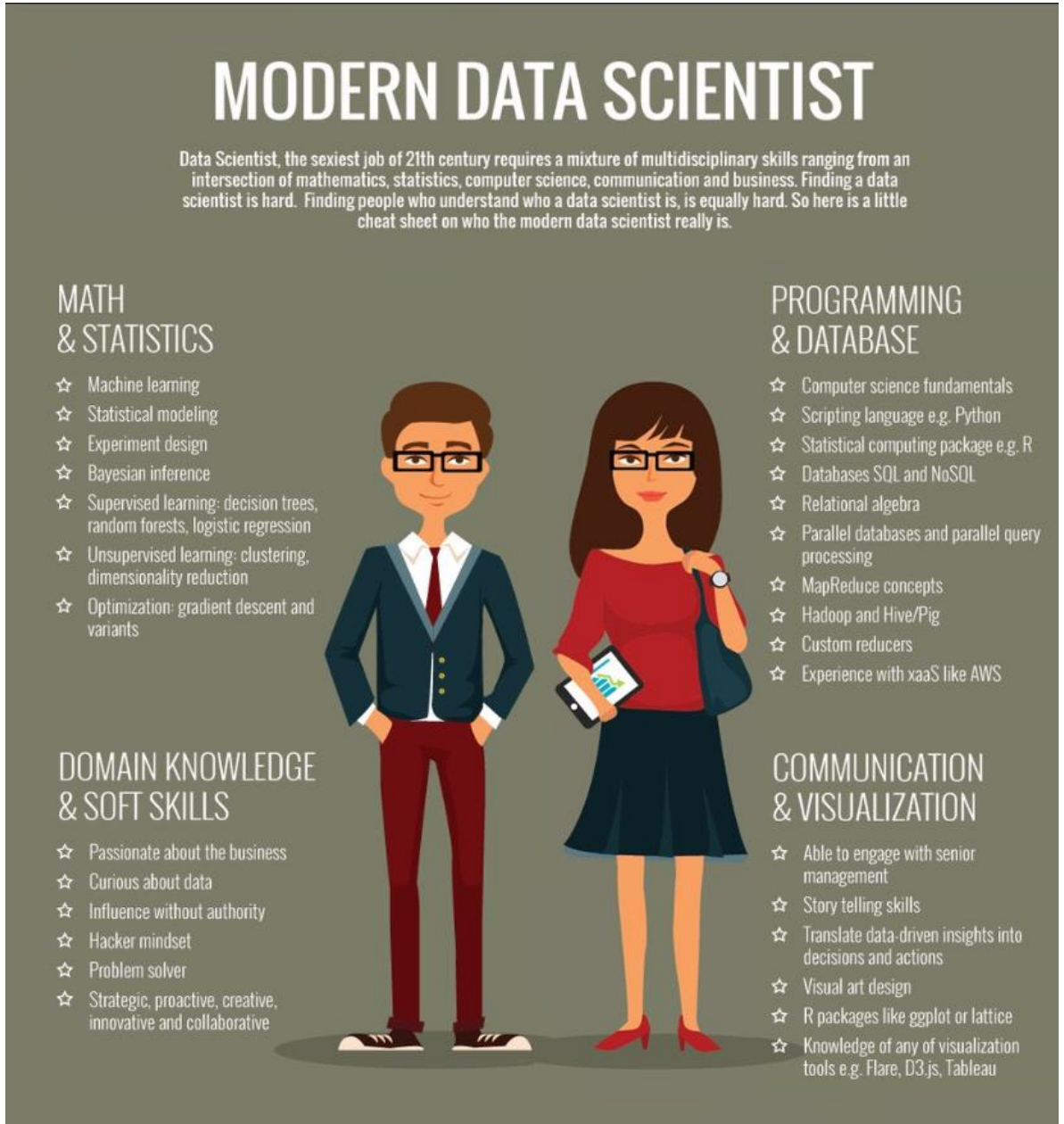
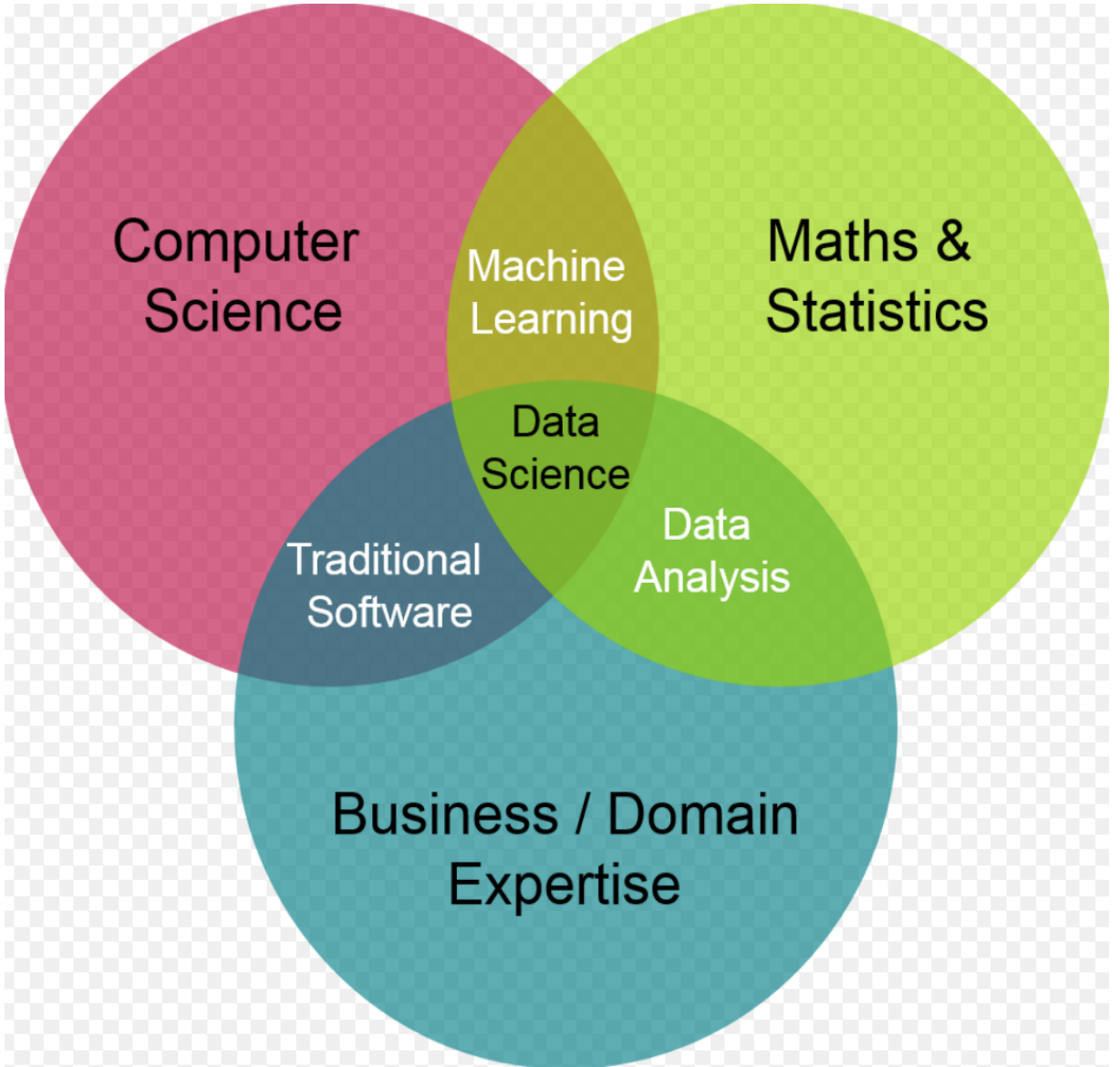
Programming, Data Science, and using it to have fun in the real world… :-)

Who & What is a Data Scientist?





Job Outlook for Software Developers / Data Scientists

Spoiler alert… good

US Bureau of Labor Statistics

Quick Facts: Software Developers, Quality Assurance Analysts, and Testers	
2021 Median Pay	$109,020 per year $52.41 per hour
Typical Entry-Level Education	Bachelor's degree
Work Experience in a Related Occupation	None
On-the-job Training	None
Number of Jobs, 2021	1,622,200
Job Outlook, 2021-31	25% (Much faster than average)
Employment Change, 2021-31	411,400

https://www.bls.gov/ooh/computer-and-information-technology/software-developers.htm

Quick Facts: Data Scientists	
2021 Median Pay	$100,910 per year $48.52 per hour
Typical Entry-Level Education	Bachelor's degree
Work Experience in a Related Occupation	None
On-the-job Training	None
Number of Jobs, 2021	113,300
Job Outlook, 2021-31	36% (Much faster than average)
Employment Change, 2021-31	40,500

https://www.bls.gov/ooh/math/data-scientists.htm

About Me (Ted)

School & Work:

FLINT CENTRAL INDIANS → 甲南大学 → Michigan State → Temple → onsemi → intel

Hobbies:

Running

+

Programming

+

Family

Matt Celaya

- Graduated from MIT with a degree in Economics
- Worked at ON Semiconductor as a data scientist
- Currently working at Intel as a supply chain technical analyst
- Python, R, Javascript, SQL
- I enjoy reading, chess, guitar, hiking, and gaming

Massachusetts Institute of Technology

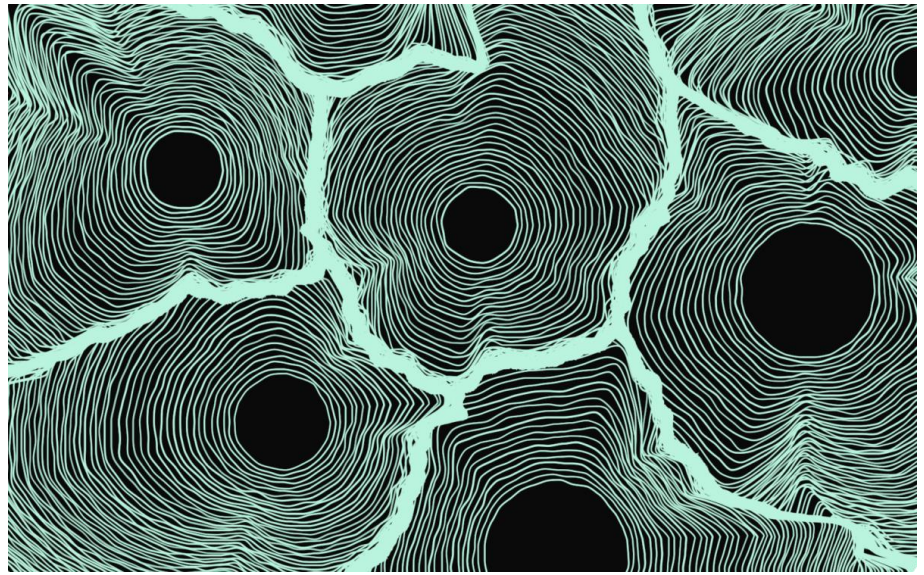
intel

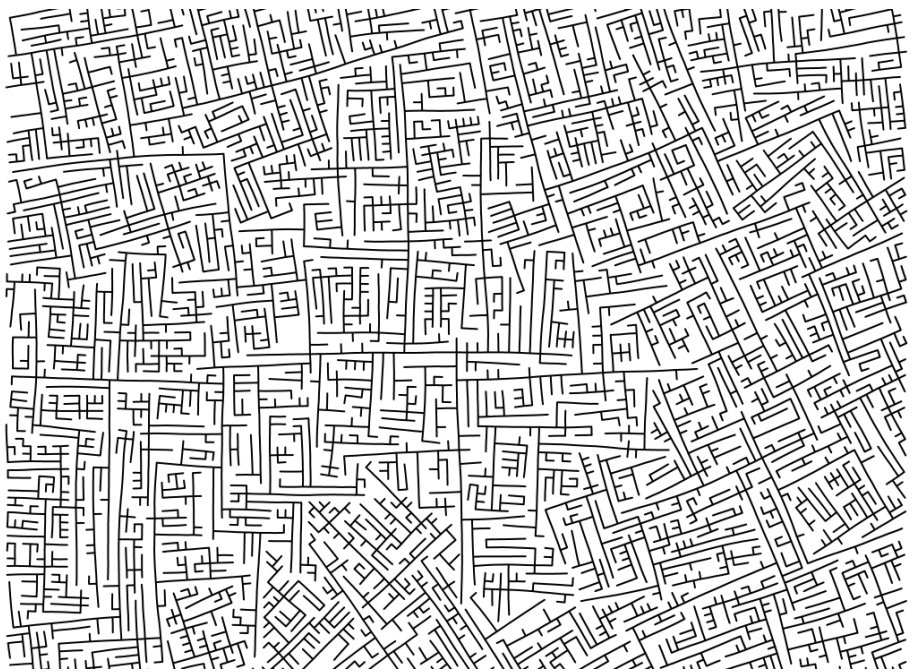
Programming for Creativity

- There's a wide range of interesting applications of programming outside of business or academic spaces

- Lots of people use programming to express their creativity
  - Generative art
  - AI generated images and text
  - Data viz
  - Games!

- What are some creative projects you're interested in working on?





Tips for creative coding

- Work on projects that interest you
- Understand your own skill-level and set reasonable expectations in deciding on what to build (you don’t need to build the next ChatGPT!)
- Don’t limit yourself to one language or technology
- Try to understand concepts and patterns you can apply to any language or project
- Have fun! It’s cliché but it’s true.

Examples

- https://mc-markov.surge.sh/
- https://mc-sir-model.glitch.me/
- https://mc-tree-generator.glitch.me/
- https://mc-pixel-paint.glitch.me/
- https://mc-maze-generator.glitch.me/

Exploring Data – Prison Statistics

Things I like to do with programming (outside of work, and really inside as well 😃)…

Find something fun that you want to try to technically accomplish, and match it up with data which you can use to accomplish it.

In this case I wanted to draw a choropleth map which moved over time, and then find data to use to accomplish it.

So… lets play

The stuff I am presenting is posted here: https://github.com/TedBraun08/fun

This presentation: https://github.com/TedBraun08/fun/blob/main/DV_Slides_May_2023.pptx
Program: https://github.com/TedBraun08/fun/blob/main/PrisonStats_and_Corr.r
Output #1: https://github.com/TedBraun08/fun/blob/main/az.png
Output #2: https://github.com/TedBraun08/fun/blob/main/PrisonAdmitPer100k_02.gif
Output #3: https://github.com/TedBraun08/fun/blob/main/States_10.gif
Output #4: https://github.com/TedBraun08/fun/blob/main/CorrelationMatrix_01.gif