Data Science

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Python

First off, what is Data Science???

Data science is an interdisciplinary field that uses scientific methods, processes, algorithms and systems to **extract knowledge and insights from** noisy, structured and unstructured **data**, and **apply knowledge and actionable insights** from data across a broad range of application domains.
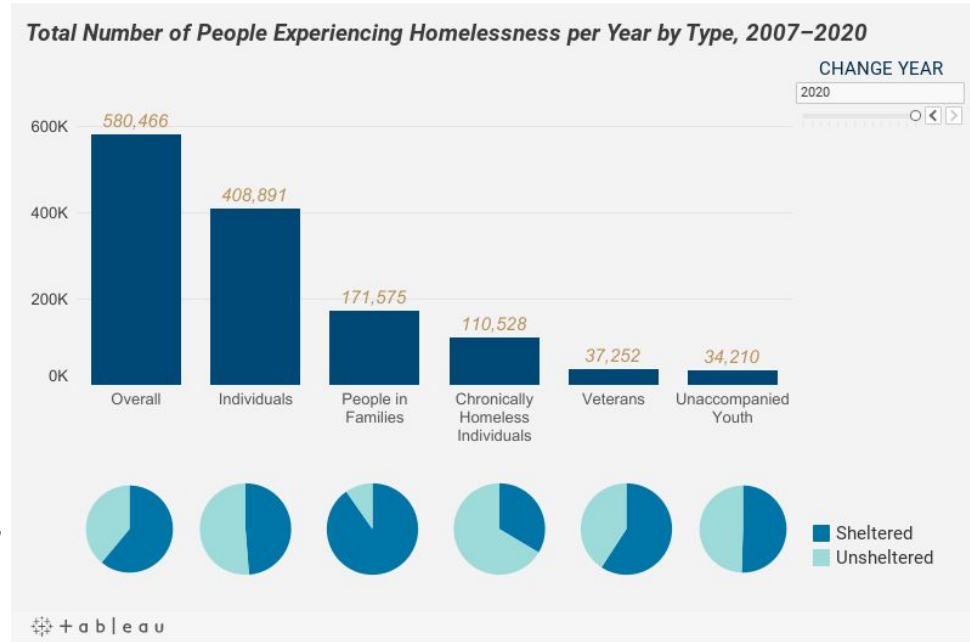
Basically, manipulate data for us to understand!!!

An example of Data Science

Imagine how someone came to create this chart.

They first started out with **LOTS of data.**

With that data, they have to figure out **what's important** and **what may be of interest.**

Total Number of People Experiencing Homelessness per Year by Type, 2007–2020
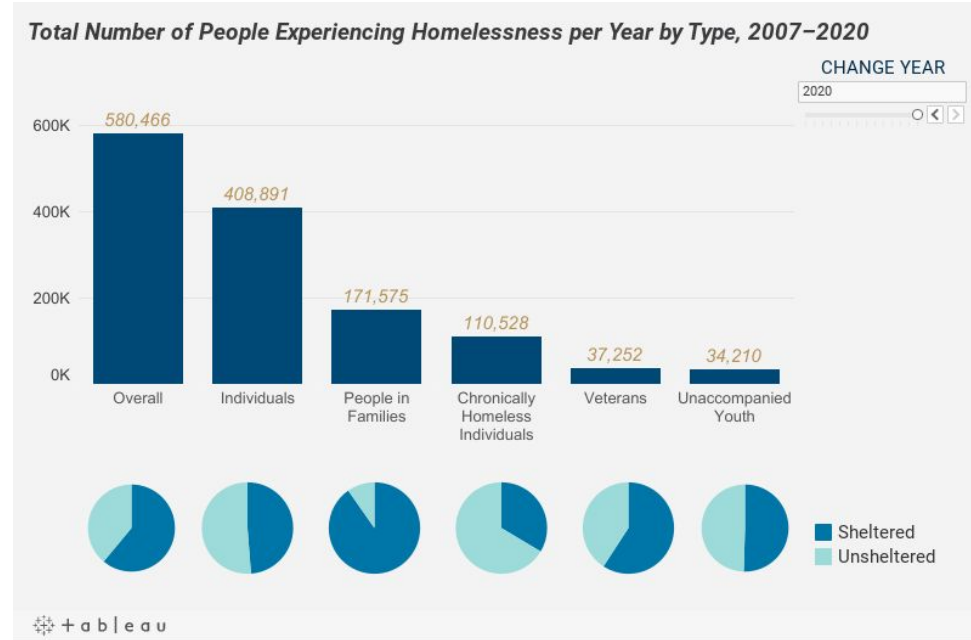
Why is Data Science important?

Data science helps us predict trends!

My easiest example:

1. Gathering data on the homeless and how they got to be where they are.
2. This can lead to **observing trends** among how people became homeless **to prevent other people from becoming homeless**

Total Number of People Experiencing Homelessness per Year by Type, 2007–2020

Let's just look at data today!

Covid19 has a LOT of data!

1. How can we parse through it for GOOD information?

2. What are the trends between vaccinations and cases?

3. What are the trends between travel and number of cases?

These are some good questions to ask!

Data science is driven by **curiosity**!

Lab: Data Science

For this lab, use what you've learned from Numpy and Pandas.

1. I've given you a couple sets of data!
   a. Check them out!
2. Ask 3 questions about this data.
3. Create 3 graphs from the data to answer these questions

Open up mybinder.org

All information is within the notebook!

Enter: https://github.com/JacobPooleCV/TPoole22_Sem2/

For branch enter "**103_Data**"

Build and launch a repository

GitHub repository name or URL

GitHub ▾ | https://github.com/JacobPooleCV/TPoole22_Sem2

Git ref (branch, tag, or commit) | URL to open (optional)

103_Data | URL to open (optional) | File ▾ | launch

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