MAPPING CAMPUS SEXUAL ASSAULTS

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THE GOAL

Create a map using data we've collected.

http://shannonvturner.com/seriously/

This is a map of colleges that reported having zero sexual assaults from 2010-2012.

PROBLEM DEFINITION

- An estimated 1 in 5 women will experience sexual assault while in college.
- But schools aren't treating it like an epidemic.
- Why aren't schools taking this seriously?
- How to change the culture of victim-blaming, minimizing, and covering it up?
- How to ensure survivors get help and support they need?

IDEATION

- Underreporting is a major problem.
- I don't want to encourage schools to cover up the problem by shaming the schools with the highest numbers.
- How to motivate schools? Go after their reputation.
- Do they want to be known as a school that covers up campus sexual assault?

FOCUS

- What will have the greatest impact?
- My choice: I'll focus on the schools that reported zero sexual assaults.
- This assumes I'll be able to find data on how many sexual assaults occurred on each campus.
- Though if I'm unable to find this information, that's a powerful conversation starter.

THE ELEVATOR PITCH

I want to create a map that shows the colleges and universities that reported having zero sexual assaults on their campus.

WE CAN DO THIS IF WE CAN …

- ✓ Define the outcome
- ✓ Find data on campus sexual assaults
  - ✓ Preferably one unified data set, with all schools over the same period
- ✓ For each school, find its location
- ✓ For each location, put a pin on a map

THE DATA!

http://apps.washingtonpost.com/g/page/local/sex-offenses-on-us-college-campuses/1077/

- There's a LOT of info here! More than we need for our narrowly-focused project.

- Bonus: all schools included, all over the same period (2010-2012)

FINDING A LOCATION

- Slow: search in Google maps, grab the coordinates from the URL that autoupdates

- **https://www.google.com/maps/place/1600+Pennsylvania+Ave+NW,+Washington,+DC+20500/@38.8977332,-77.0365305,17z**

- Coordinates: **38.8977332**, **-77.0365305**

FINDING A LOCATION

- Fast: use a **geocoder** which will look up the location for an address and find its coordinates

- There are many geocodes out there, and many for different languages. We'll use a geocoder built for **python**.

REQUIRED INSTALLS

- **Installing pip: https://github.com/shannonturner/python-lessons/blob/master/installing_pip.md**

- Once you've done that, we want to install the **geopy** library: **pip install geopy**

USING A GEOCODER

```
from geopy.geocoders import GoogleV3
geolocator = GoogleV3()

address, (latitude, longitude) = geolocator.geocode(school)
```

There are many types of geocoders, but we're going to use the GoogleV3 geocoder.

The variable **school** is just the name of a school. If you have an address, that works too!

IT'S OPEN SOURCE

- So take advantage!
- **https://github.com/shannonturner/seriously/blob/master/geocode.py**

- What's in the file **schools_zero.txt**?
- And what does the code do?

WHAT'S IN THE FILE?

West Virginia Wesleyan College WV
West Virginia University at Parkersburg WV
Bluefield State College WV
Viterbo University WI
University of Wisconsin-Stevens Point WI
Mount Mary College WI
Milwaukee School of Engineering WI
Medical College of Wisconsin WI
Marian University WI
Madison Area Technical College WI
Edgewood College WI
…. and on and on …

WHAT'S THE CODE DO?

- Opens a file
- For each line in **schools_zero.txt**:
  - Use the geocoder on that school
  - Create a **JSON*** entry with the school name and coordinates
- Write a file with the results called **schools_zero.json**

WHAT IS JSON?

- It stands for **JavaScript Object Notation**
- It's a way of storing information that's easy for both people and computers to read!

JSON LOOKS LIKE THIS


```
    "geometry": {
        "coordinates": [
            -81.50572799999999,
            39.21675500000001
        ],
        "type": "Point"
    },
    "properties": {
        "address": "West Virginia University at Parkersburg, 300 Campus Drive, Park
        "marker-color": "#3F3040",
        "marker-symbol": "circle",
        "name": "West Virginia University at Parkersburg"
    },
    "type": "Feature"
},
{
    "geometry": {
        "coordinates": [
            -81.2402681,
            37.2648914
        ],
        "type": "Point"
    },
    "properties": {
        "address": "Bluefield State College, 219 Rock Street, Bluefield, WV 24701,
        "marker-color": "#3F3040",
        "marker-symbol": "circle",
```

A SHORTCUT

- Paste your JSON with location info into Github and save the file

- File text looks like: **https://raw.githubusercontent.com/shannonturner/seriously/master/schools_zero.json**

- Github maps it for you: **https://github.com/shannonturner/seriously/blob/master/schools_zero.json**

QUESTIONS? NEED HELP?

This was a quick intro - we skipped over a lot!

Email me!

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Join the classes!

hearmecode.com