# GEOG 432/832: Programming, Scripting, and Automation for GIS

Week 13.02: Investigating spatial autocorrelation

Dr. Bitterman

# Today's schedule

- Open discussion
- Update presentations
- Slides, discussion, and exercises
- For next class

# **Open discussion**

## **Building spatial weights matrices**

#### Today's prep:

```
%matplotlib inline
import seaborn as sns
import pandas as pd
from libpysal import weights
from libpysal.io import open as psopen
import geopandas as gpd
import numpy as np
import matplotlib.pyplot as plt
# new ones below
import esda
from splot.esda import moran scatterplot, lisa cluster, plot local autocorrelation
```

### Verify all packages are in your environment

...and that you're in the correct environment

## Today is a (nother) guided exercise

## calculating spatial autocorrelation

- Download week13\_inclass.ipynb from GitHub
- Download week13data.zip from GitHub

## For next class

- Lab 7 due next week
- Readings are linked/posted on Canvas...