Elif = else if

List uses brackets, just things.

Dict uses braces, each thing has an identity using a colon. Identity can be a list.

Hash sets, learn

For i in data… i is the iterator

For i in data if i%2 ==0

i if i%2==0 else 0 for i in data

**Project**

Investigating economic impact of green spaces

* monetary value put into community
  + home values, small businesses, jobs
  + *predictive modeling*- types of things in green spaces that lead to x, or interaction of something in community and something in green space that leads to x
* define your desired outputs, your x’s… I think this might be the same for all models, just ways of getting there may be different- infinite interactions that can work. Then we can say that *this type of interaction in this community works.*
* So, goal of model is to highlight interactions in communities that lead to most productivity in multiple parameters that I define. Then we can expand those kinds of programs in those communities.

The Bradley ethos is community-tailored designs. Designs should be community-centric because the way communities interact with their built environment is different. Built environments are different, cultures are different, and values are different. And honestly, success of design is different in each scenario.

* ranking system of community values, based on symbiosis of each
* correlation of certain interactions with certain output

k nearest numbers

* find closest value point within a number of features, can use Euclidean or absolute
* use scikit –learn for classifiers.

Look into this weekend for data sets.

ROC- receiver operating characteristic

- For binary data.

- Area under the curve isn’t exactly the best metric, want to see how the curve performs, consistency is important.

- F1 score… combination of true positives, true negatives, false positives, false negatives… good global indicator of strength.

PROJECT

* crime rate as a function of distance to a green space… see trends
* pick an area of the city
* extrapolate crime data- violent and nonviolent- and their locations
* map their distances to parks, based on coordinates
* <https://data.baltimorecity.gov/Public-Safety/BPD-Part-1-Victim-Based-Crime-Data/wsfq-mvij> use victim-based crime data. Can use specified types, or classify into new categories (violent = assault and shooting, nonviolent = everything else)
  + columns are crime date, crime time, crime code, location, description, weapon, post, district, neighborhood, location coordinates, total incidents
  + will map distance to closest green space and crime…. Correct for biases?
  + Can also map based on amount of time between crime and green space implementation
* end game is to come up with a function/trend for crime and distance from green space, maybe also time dependent.
* Use KNN
* Geohash (breaks down areas), Google places API (plug in coordinates for distances)
* Going to use 2014 data so I can look at seasonal differences. Also, don’t want to factor in the Uprising.