
ISyE 2028 – Basic Statistical Methods - Fall 2015
Bonus Project: “Big” Data Analytics
Proposal

Most Efficient Route from Tech Square to the CULC

Georgia Tech students often find themselves needing to walk from Tech Square to the CULC, after lunch or even just to get to class from their places of residence, with the new apartment buildings of Square on Fifth and University Housing opening this past year. Though the Tech Trolley runs through Tech Square, I have found it to be overcrowded and often off-schedule. For a Georgia Tech student getting to class, walking is simply far more reliable than taking public transportation. In light of this, I am proposing to find the most efficient pedestrian route from Tech Square to the CULC.

To find this route, I will walk three of the most common paths to the CULC northern entrance from a set starting location in Tech Square. The first route is down 5th St. NW, then turning left at the Klaus Advanced Computing Building, electing to cut through the College of Architecture Building. After that, it is a simple walk to the northern entrance of the CULC. The second route is down 5th St. NW, then turning left at Fowler St. NW. When Fowler ends, I turn right onto 4th St. NW, then taking it almost directly to the northern entrance of the CULC. The final route is taking 5th St. NW to Klaus, then cutting through Klaus and turning left for a straight shot south to the northern entrance of the CULC. I will walk all of these many times—my goal is to walk each about 15 times. I normally have to take the walk about 2-3 times a day anyway, so if I just take another walk per day this goal should be reachable.

After I acquire the data, I will type it up in a text file and import it to the R software. I will derive the sample means and other descriptive statistics with R, and then construct a group of histograms for each route. I will also construct a boxplot for each route, and compare these graphical interpretations of data. Finally, I will construct confidence intervals for the mean values of each route, with a 95% confidence level. With all of these results, hopefully I will be able to conclude which route is truly most efficient with a strong degree of confidence.