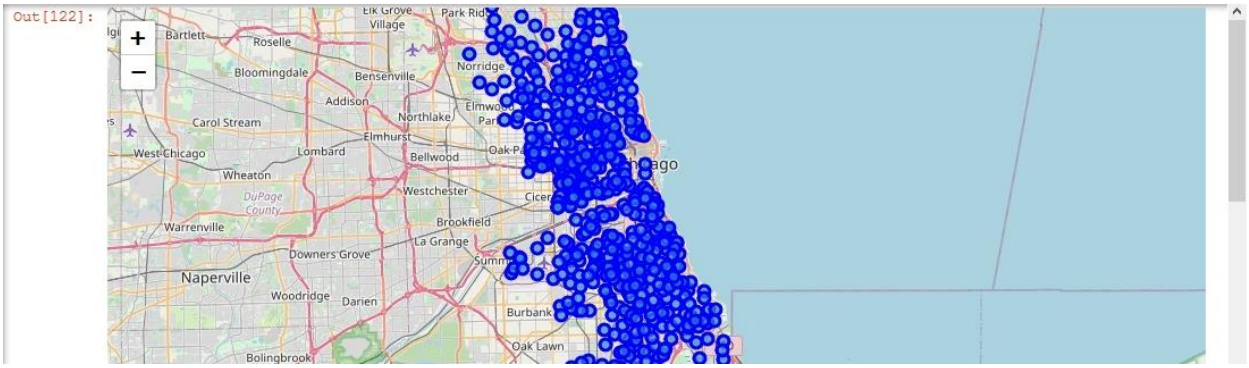
Leveraging on Schools in Chicago

Abstract

A great school educates all students from different fields of social skills backgrounds, exposing them to challenging coursework on the path to graduation. Outcomes above expectations in skills and reading state assessments, passed a diverse array of college-level exams and graduated in high proportions. I did this by summing their weighted scores quality indicates school quality, then computed for each school a single zero to 8 overall score reflective of performance across this metric, at the end of project I summed all of metrics in term of performance of each school and cluster them as ranked it zero to 4. The overall scores depict how well each school did and communities are ranked according to their schools performance. For example, a community in cluster 3 has best performance among other communities.



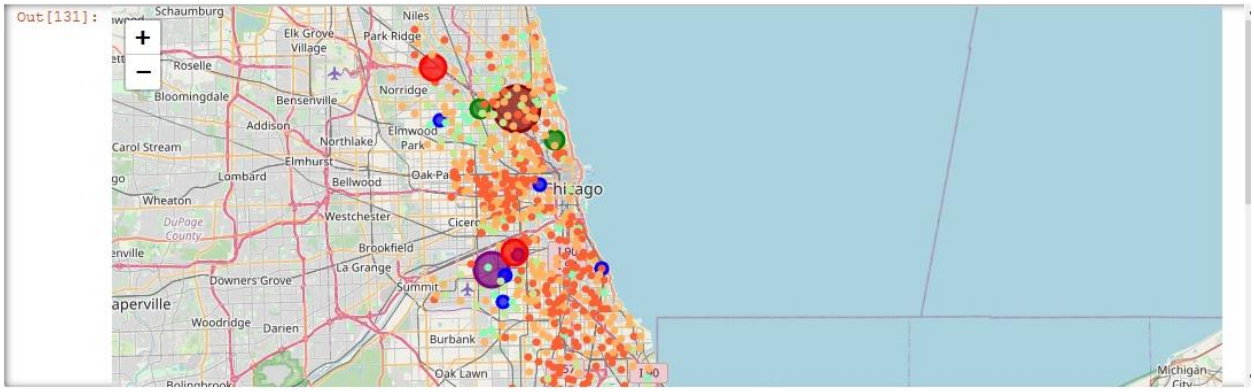
Map of schools in Chicago city

1. Introduction

Parents, policymakers, and educators are committed to identifying great schools and calling attention to failing ones, but they often lack the tools to distinguish adequately between them. The proliferation of available student data, advancements in analytic methods, and increased public demand for school quality information has spurred innovation and diversification in school quality rating systems. But with this rapid evolution comes the challenge to understand and track these diverse systems' characteristics.

So in this project I tried to analyze and segment communities of this city based on college admission and finally cluster all schools on their communities. Because the result of college admission is an average of their general information, as well as their

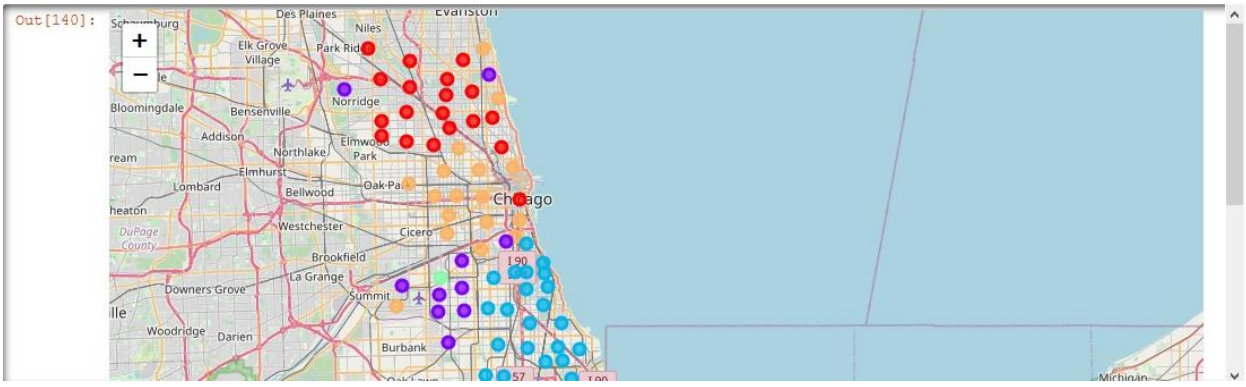
skills. After this I clustered them based on all columns which have influence on performance of mentioned schools. Results of clustering and segmenting are shown in 3 images as chi1, chi2, and chi3, because of Github unfortunately doesn't show the folium map I upload them separately. Please check all of them.



Categorized according to college admissions. The big spots are the best.

3. Conclusion and future works

While this report does not attempt to recommend a national charter school quality rating system, the analysis of existing project can provide useful insights into school quality measures, methods, and reporting formats that could be considered in a system. As you can see the best clustered community is 3 (with bright green point beside airport symbol) and respectively 0 (red points), cluster with label 1(purple points), label 4(orange points), at end label 2(blue points). At next assignment I will make a weighted function that measure columns influence on performance of each school and try to rank it by this function and at the end cluster it to compare the results of two methods.



Clustered according to impact of all important columns on performance. The bright green spot near airport is the best community for its schools, then respectively red spots,