Real Estate Developer Opportunity Finder

Project Results

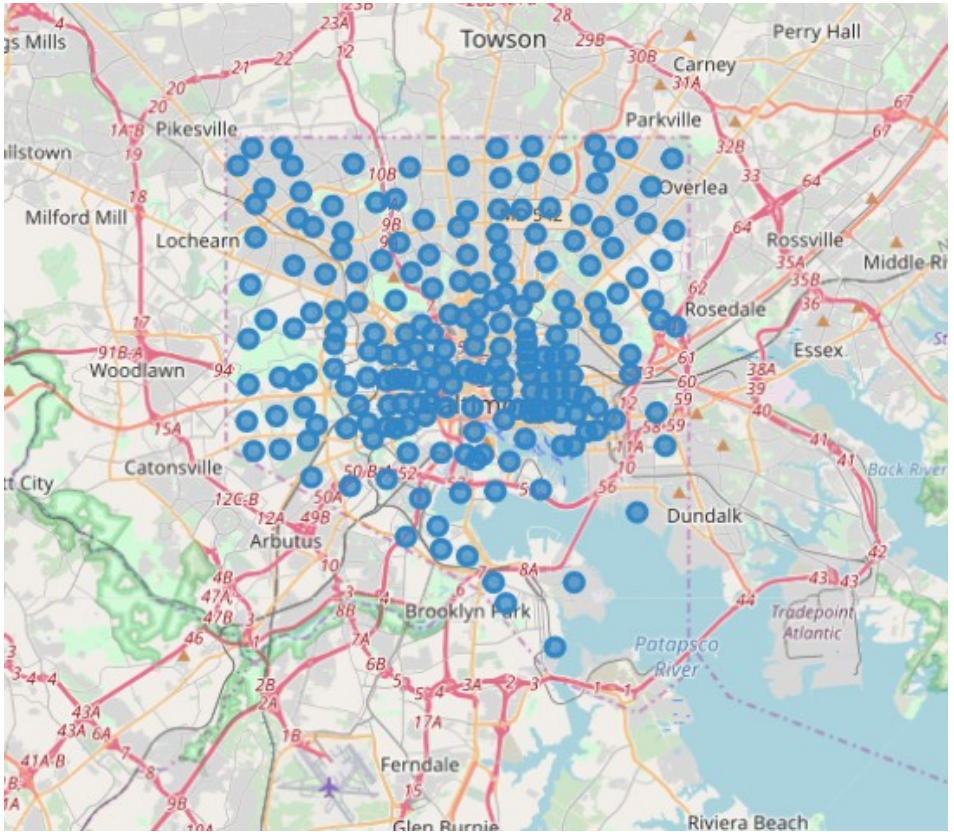
NorthAm Real Estate Consult

Introduction

- As a leading advisor to US real-estate developers our firm needs to stay on top of the game even in cyber-space
- Our clients deserve the best service possible
- We decided to perform a project to explore Foursquare data to augment our data
- The project focused on mall developments in US cities
- Today we show and discuss the first results and deicde on next steps

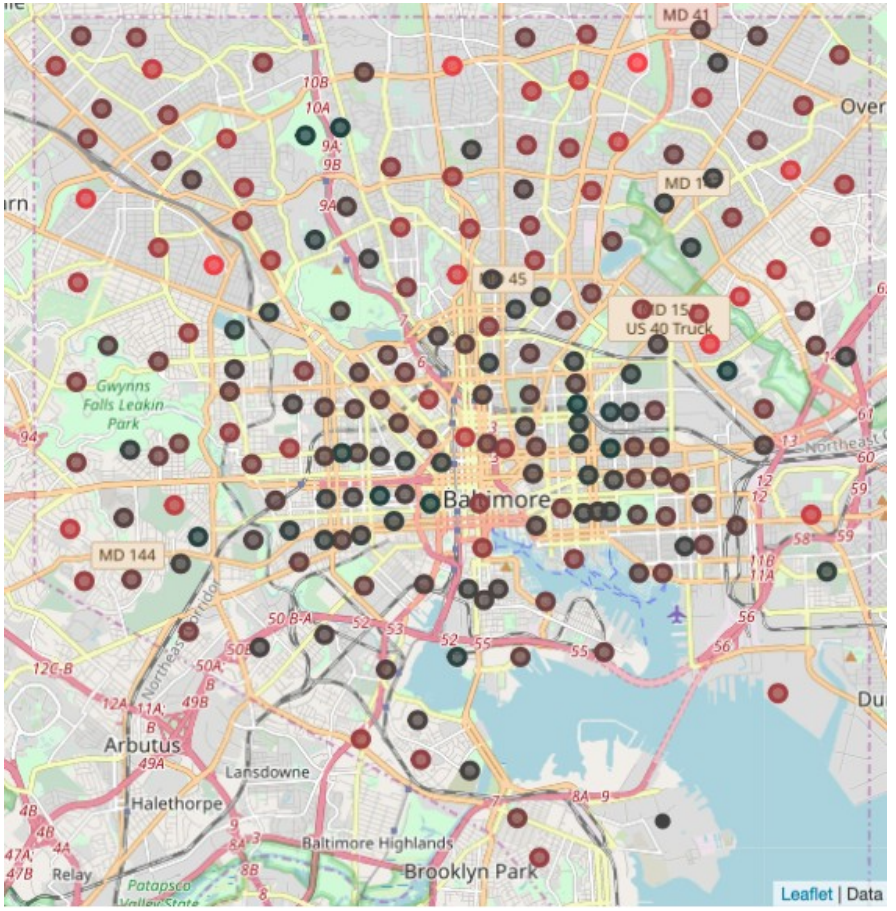
Data – Demografic Data

- US Government provides curated census data with high geographical resolution
- For our study we used demografic data of Baltimore, MD with Census Tract resolution
- Image on the right shows a plot of all Census Tract across Baltimore



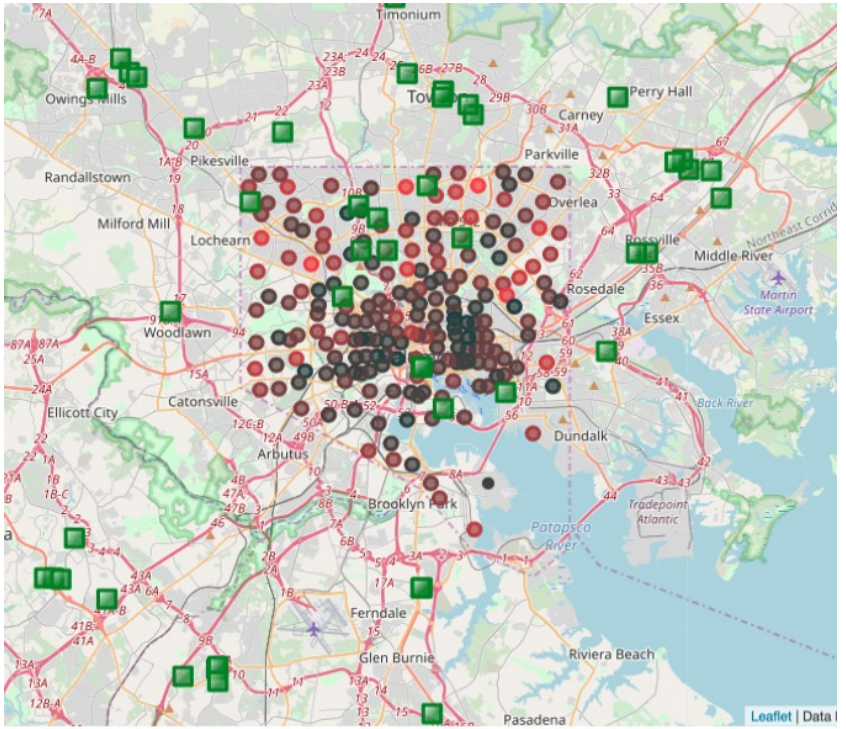
Data – Demografic Data continued

- We used the population data
- Image on the right shows population data color coded for population
- Lots of data is available, e.g. household income. Further analysis required



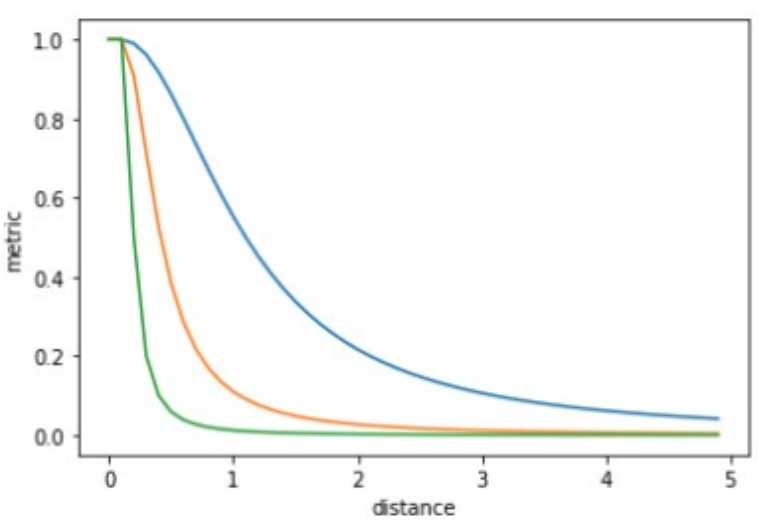
Data – Foursquare

- Foursquare is a data provider specialised on business data.
- Foursquare provides location, type of business, recommendations, customer traffic and many more information point which should valuable for us
- Image on the right shows the map from the previous slide with malls (green squares) added
- Lots of data is available, e.g. household income. Further analysis required



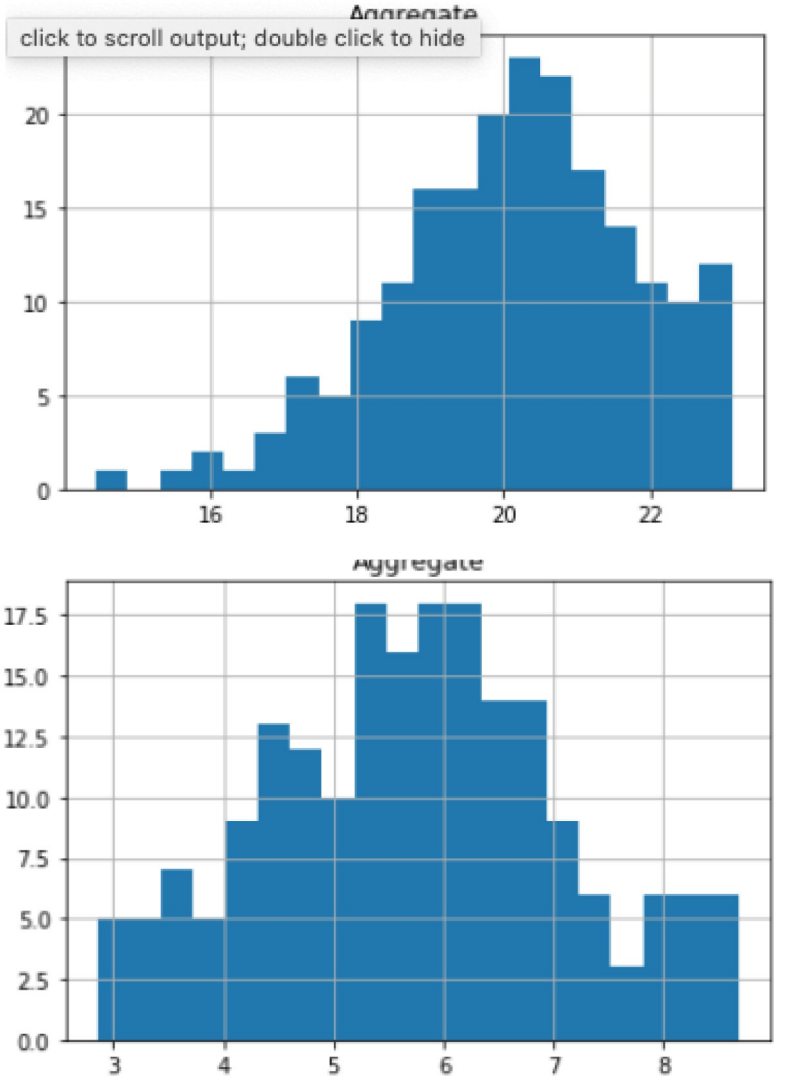
Model

- Model used to rank locations for new developments
- Criteria
  - High population
  - No other malls nearby
- Closeness of other malls scored through a Nearness metric depending on
  - walking distance
  - Laziness
- Chart on the right walking distance 1 km and laziness 1 (green), 0.1 (orange), 0.01 (blue)



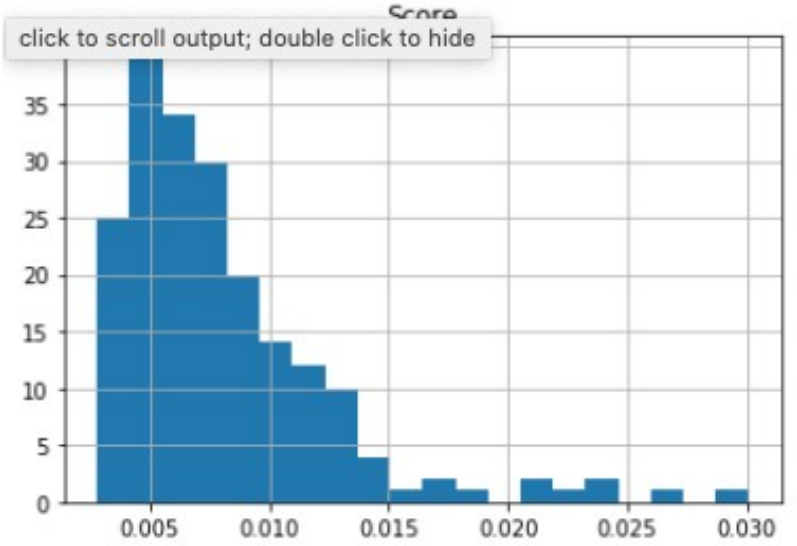
Model continued

- Aggregate Nearness as a measure to overall nearness of competitors
- Overall nearness is the sum of all Nearness values over all mall found by Foursquare
- Charts on the right show the Aggregate Nearness distribution for a walking distance of 1 km and
  - Laziness = 0.01 (top)
  - Laziness = 0.1 (bottom)



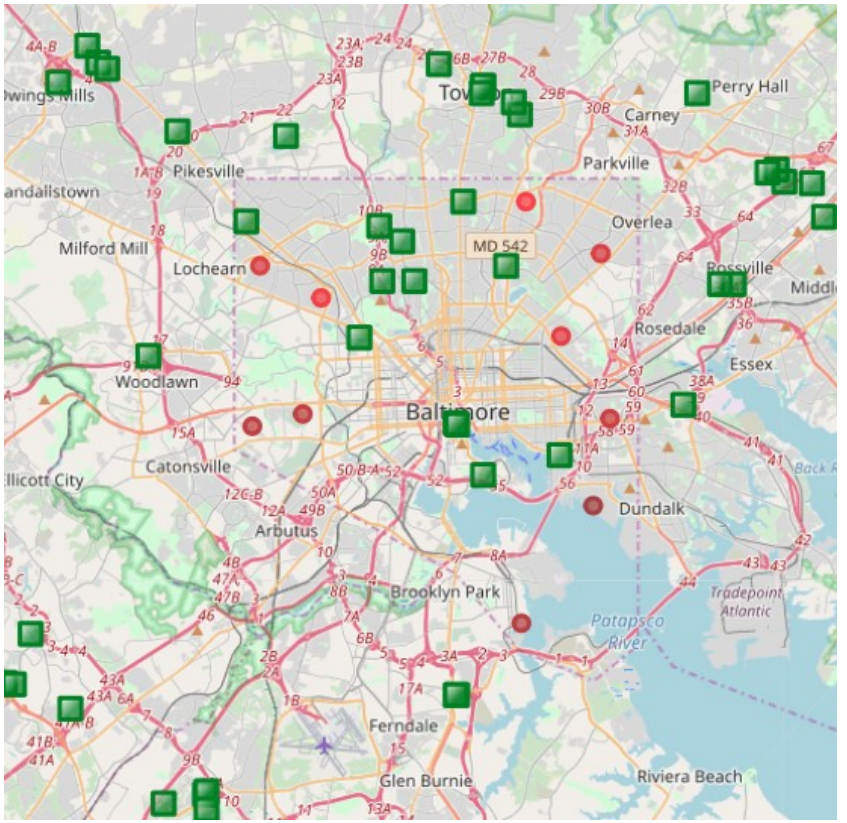
Model continued

- Final Score calculated as Nearness divided by Population
- Small Score means great location
- Chart on the right shows the distribution of Scores for all Census Tracts in Baltimore
- Top picks to are determined as the Tracts with the smallest Score.



Result

- Chart on the right depicts the Malls with the Top 10 (small is good) score on the Baltimore map
- Top three neighborhoods are
  - Hawkins Point,
  - Hashburton, and
  - Bayview



Conclsion and next Steps

- Foursqure can provide valuable, additional data for our analytics product
- We created a score which has the potential to help or clients to identify promising locations for developments
- Due to the use of census data this model can be aplied everywhere in the US
- Additional work is needed
  - Add additional information to the model such as household income, gender, available building ground
  - Include adjacent Census Tracts into the model
  - Investige dependencies of results on model parameters
  - Do on-site visits or Goolgle earth exploration to validate results

THANK YOU