Dallas\_Building\_Fire

## 

## Files:

* alarm.ipynb
  + Tasks
* Building\_Fire.csv
  + Untouched data source from City of Dallas
* census.ipynb
  + Tasks
* Correlation\_matrix.ipynb
  + Tasks
* Fire\_Charts.ipynb
  + Tasks
* FirePy – Geocode.ipynb
  + Majority of data cleaning occurs here.
  + Gathers geo data for fires.
* firestation\_geocode.ipynb
  + Gathers geo data for City of Dallas fire stations
* haversine.py
  + Requires (latitude, longitude, latitude1, longitude1, unit (km or mi, km is default)).
  + Returns distance between two points with lat / lng at sea level on Earth.
* improved station distance.ipynb
  + Uses Haversine formula to determine distance to two nearest fire stations.
  + Much, much faster than API. Calculated ~36,000 distances in under 10 seconds, but strictly requires that all lat / lng points are already provided.
* Nearest\_Fire\_Stations.ipynb
  + Uses Google Geocode API to determine distance to two nearest fire stations.
* Time vs Fire Frequency
* data/Dallas\_coords\_census\_data.cscv
  + Adds census data and fire damage summary to Dallas coords (two files down)
* data/Dallas\_coords\_grid.csv
  + Adds fire data to evenly spaced grid (next file).
* data/Dallas\_coords\_only.csv
  + Stores an evenly spaced gride of points which lie inside City of Dallas.
* data/fire\_census.csv
  + Stores fires lat / lng, fire damage, and census data.
  + Census data pulled from Geocod.io
* data/fire\_stations.csv
  + Stores addresses of all 58 Dallas fire stations. Lat / Lng determined by Geocode.