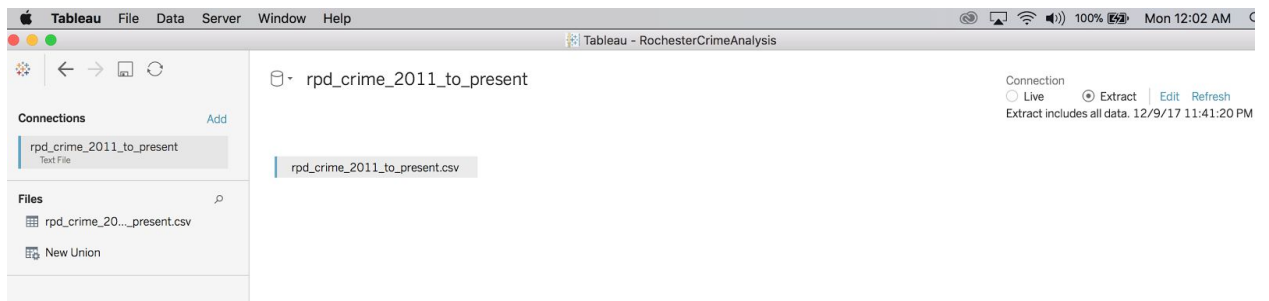


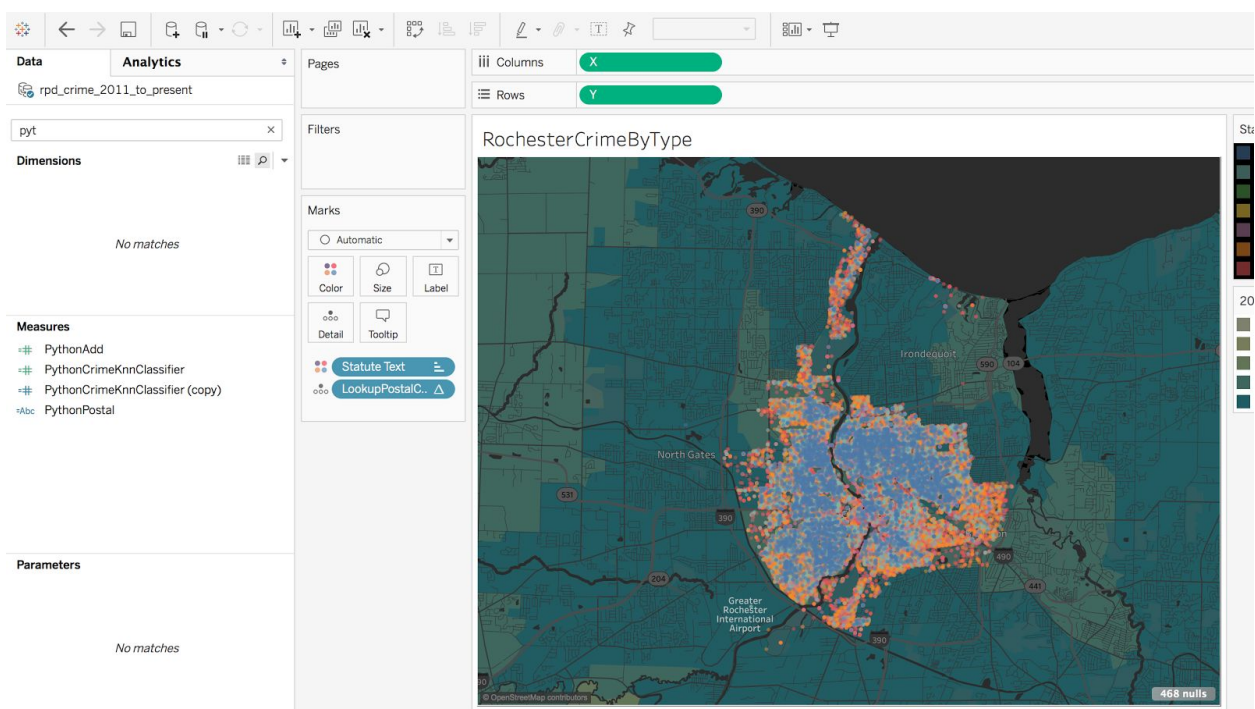
## Part 5 : Application using Tableau & TabPy

The primary objective of this section is to build an application using tableau and TabPy. To allow tableau to interact with model deployed to TabPy server in Part 2.

1. Open Tableau and connect to rochester crime data set csv file.



2. Plot a map using the latitude and longitude data inherent in the dataset. A point is plotted for each case. The map is layered with population data that comes with Tableau.



3. Create a calculated field which will leverage the KNN Classifier model deployed as part of Part 3.

PythonCrimeKnnClassifier

Results are computed along Table (across).

```

SCRIPT_REAL("
return tabpy.query('crimeKnnClassifier',_arg1[0],_arg2[0],_arg3[0])['response']
",STR([Input Address]),[Enter Month (1-12)],[Enter time of Day (24 hour format)])

```

Default Table Calculation

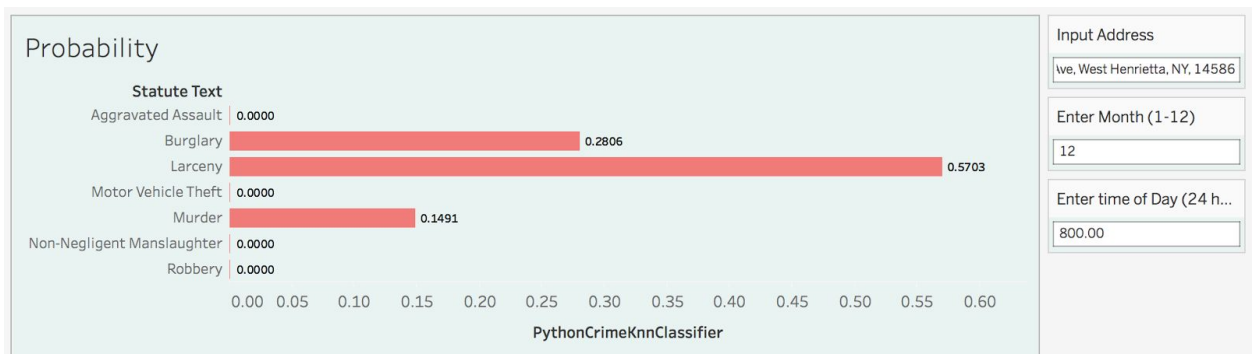
The calculation is valid.

Sheets Affected

Apply

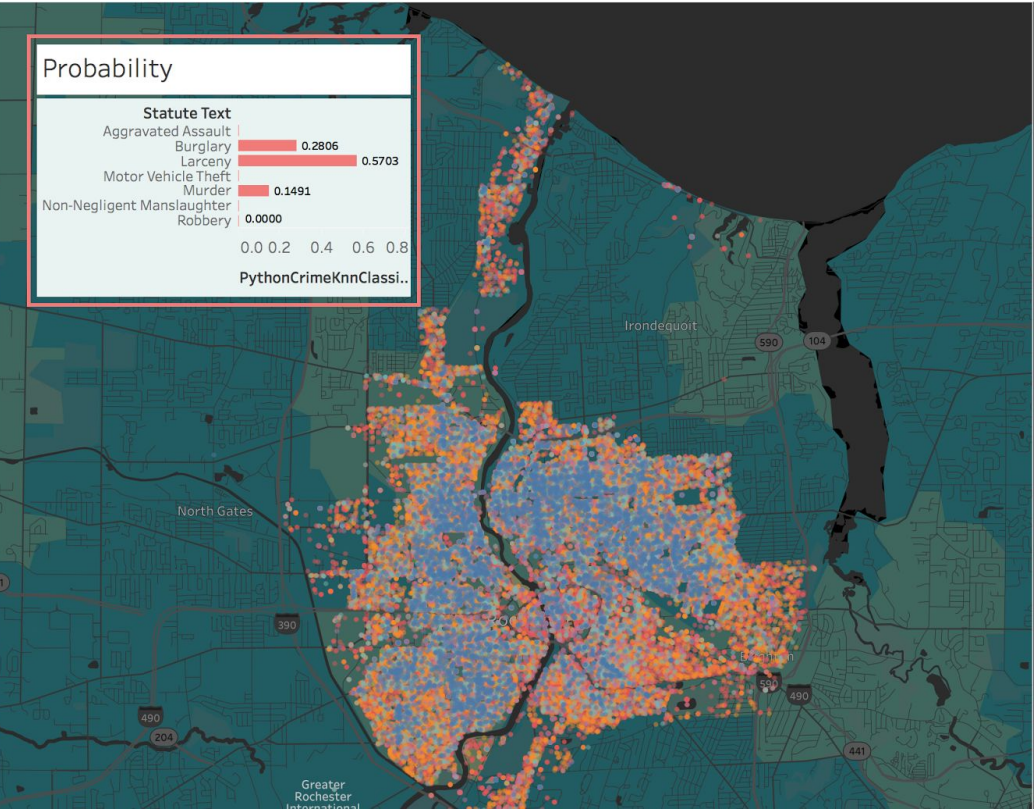
OK

- Create a bar chart to visualize the probability of crime given by the classifier. Inputs are created to feed address, month and time of day to the classifier.



- Combine the two charts to build an application dashboard. An user can interact with the dashboard by keying in address, month and time and getting the prediction.

RochesterCrimeByType



**Statute Text**

- Aggravated Assault
- Motor Vehicle Theft
- Murder
- Non-Negligent Mans..
- Robbery
- Burglary
- Larceny

**Input Address**

re, West Henrietta, NY, 14586

**Enter Month (1-12)**

12

**Enter time of Day (24 ho..**

800.00

**2017 Population**

- 0 to 766
- 766 to 2,160
- 2,160 to 6,210
- 6,210 to 20,000
- 20,000 to 122,000