

# Marketing Security Services for the Asheville, NC

Greg Waitt

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## Data

Data specific to Asheville, NC will be pulled from <https://data-avl.opendata.arcgis.com/>. The website has API access to many diverse data sets about the city. Neighborhood information will be extracted to identify each neighborhood name and their location in the city. The downloaded data already has latitude and longitude for each neighborhood boundary. The center point of the boundary coordinates will be used as the neighborhood location. Data for arrests will be also be extracted. The arrest data contains the street address, type of crime, and the date (along with many other details). A python client, geopy, will be used to identify the coordinates of the address for each arrest. The location data will be added to the arrest data. The data will be reduced to by date to include only arrests in the past year. This crime data will be combined with the arrest data to identify a neighborhood for each crime.

The Foursquare API, from <https://developer.foursquare.com/> will be used to extract business/venue information for the neighborhoods in Asheville. The arrest data and venue data will be clustered individually and combined to identify businesses in areas where certain crimes and business are clustered together. Marketing materials can then be designed specifically for the type of business and crimes that are committed in the same area. For example, if a neighborhood has a cluster of bars and restaurants with arrests of disorderly conduct then onsite security services could be recommended. If a cluster of trespassing and retails might only need security monitoring. The data will also be gleaned for new business opportunities by searching for untapped business/crime combinations.