Jane Adams

RJ Luongo

Reed Simon

October 7, 2019

Stat087 Project Proposal - Burlington Data

Our group is looking at police incident report summaries from the City of Burlington from January 2012 through June 2018. Our data includes 4 categorical variables (call type, call type group, call source, and neighborhood). There are four boolean variables: 'mental health', 'domestic violence related', 'drug related', and 'alcohol related'. We also have latitude and longitude (approximately block-level); incident location street name; date and time. We have extracted 'hour of day' and 'day of week' as additional categorical variables, for a total of 14 variables. We are, among other things, hoping to display the data trends (total daily incident volumes, incident type distributions) so as to hypothesize reasons for certain spikes in criminal activity. For example, a large spike in public intoxication on the weekends is likely due to the large college population's interaction with the numerous bars on Church Street. We plan to visualize incident volumes with breakdowns by type (e.g. theft, intoxication, noise), time (hour, day, season, year), and nature (e.g. mental health or domestic violence related incidents). We are considering also analyzing location data (GPS coordinates or neighborhood area) and incident report sources (e.g. online report, 911 call) to gain further information from which we will be able to draw conclusions. Looking at trends in incident data can provide predictive insight into future incidents; using those predictions, one could suggest public policy solutions to cut down on the number of certain types of incidents at certain times during the week, and potentially identify areas of additional interest to, or staffing demands for, police at certain times, days, and seasons.