As a part of our analysis, we included a spatial component to identify where accidents were occurring the most. To help us identify these areas we overlayed a street map with the accident point data, an interactive heatmap, and an outline of Montgomery County. This approach enabled us to narrow our research from the full dataset to specific types of crashes, such as surface conditions or injury severity. Additionally, filtering the data by time intervals enabled us to analyze snapshots of accident trends.

The recording on this slide displays the entire dataset which helped us identify where accidents have occurred the most. As we zoom in, we can observe that many hotspots occur around road intersections. When the user clicks on a point, a pop up with a timestamp of the accident displays. At the top right there is a widget to turn on and off map layers.

This recording identifies hotspots of accidents related to icy surface conditions. This example displays three road segments that have multiple accidents due to icy roads.

The final recording displays fatal crashes. In this graph, we aim to highlight that while there may not be many hotspots when zoomed in, users can still pinpoint segments of road with similar accident types. For example, when zoom in on Columbia Pike, there is one hotspot visible at this level, but it's clear that numerous fatal crashes have occurred along this stretch of road.