

# GEMO 90008 Assessment 2.4

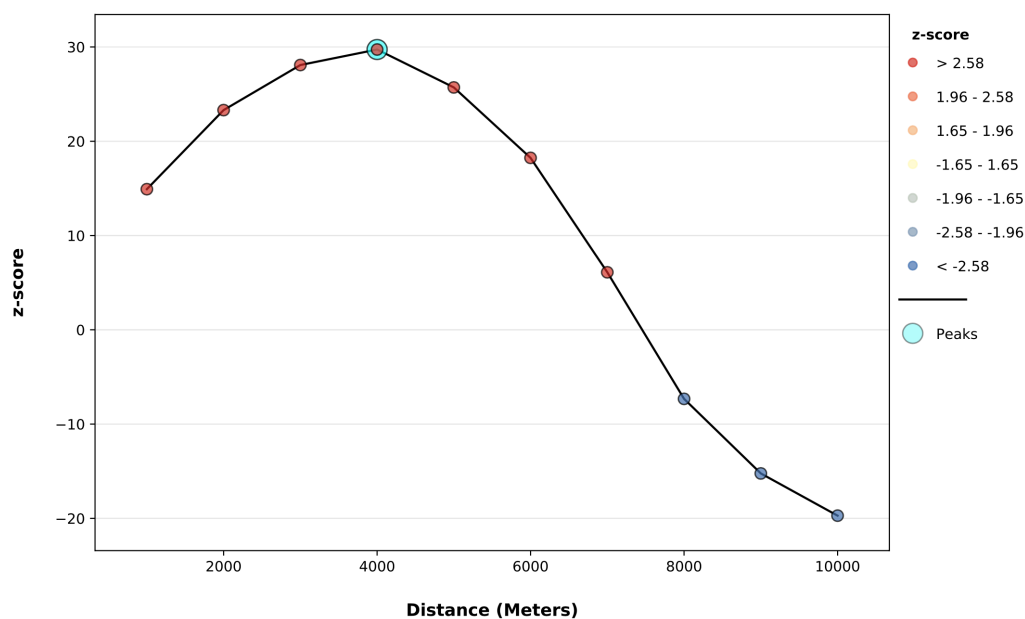
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Basic experiment:

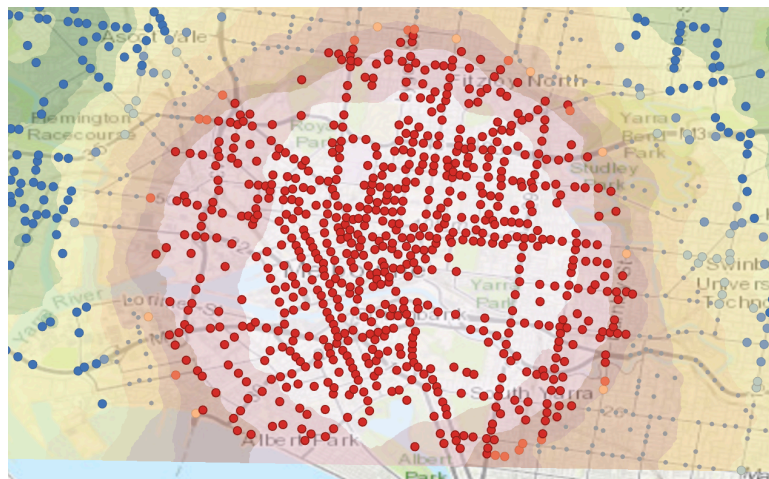
When I tried to finish this assessment following the steps of model4, there are some differences in my experiment.

I used the *Incremental Spatial Autocorrelation* from tools and got an HSDreport to represent the Z-score changes with varying the neighbourhood distance. The peak in my dataset is “4000m” not the “3800m”. The max pair of distance and Z-score is (4000, 29.72). Therefore, in later parts of this experiment, I picked “4000m” as threshold distance.



There are two aim in this project, to find which area have the highest serious accident probability, and to find which crossroads or T-Junctions should be re-designed or need more advanced traffic system.

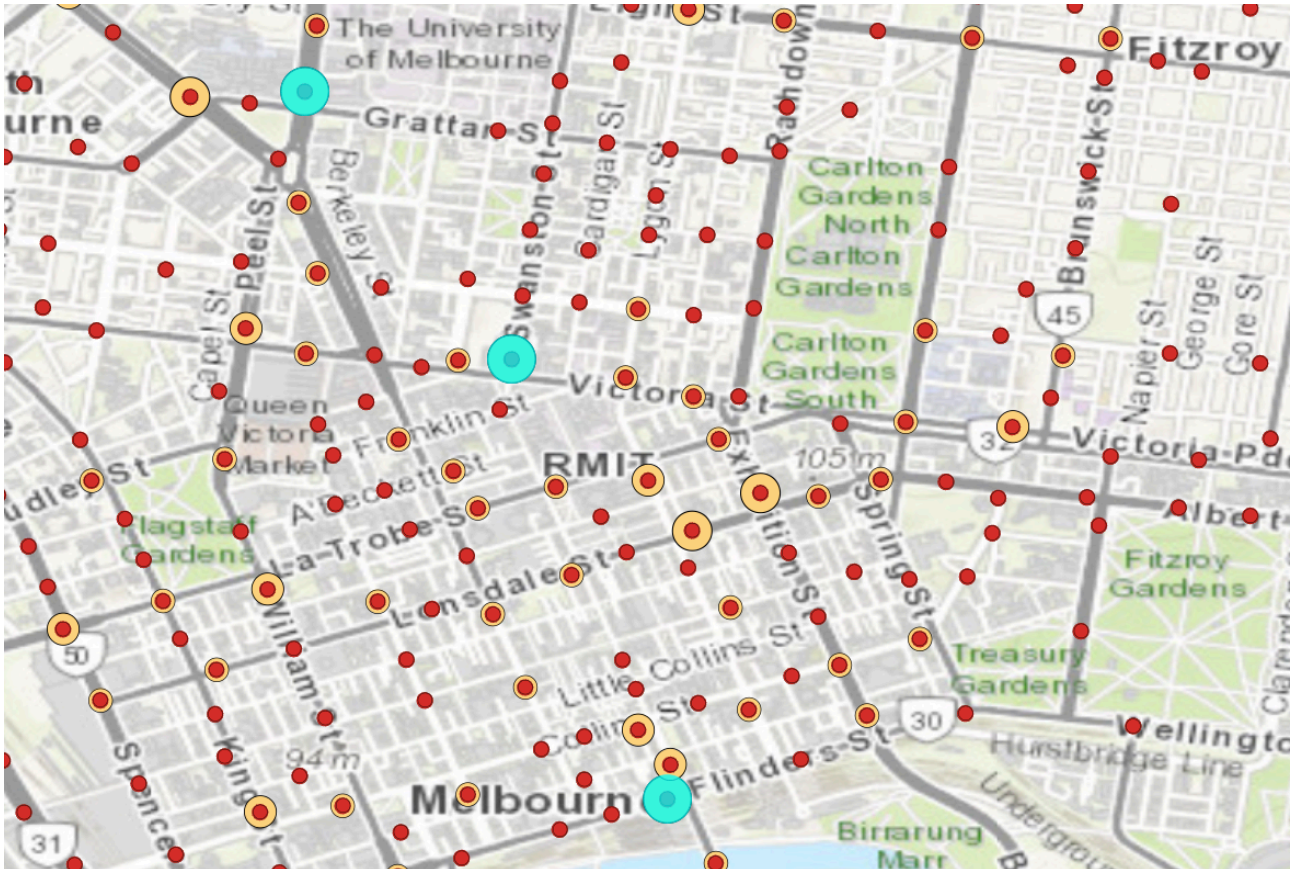
At first, I used inverse distance weight (IDW) to visualize my interpolated surface map.



The white area including the city area of Melbourne are white meaning in the past 5 years, compared with other regions, there have been a lot of traffic accidents in this region.

Advanced experiment:

Zoom in the map, I found most of the hot pots locate in crossroads or T-Junctions. Maybe the government or customers want to know which crossroads are dangerous. Using the *select a layer by attribute* tool, I found 3 crossroads have more than 15 serious accidents and highlighted them.



Shockingly, one of the most serious intersections is in the southwest corner of our university. The other two intersections are transport hubs in the Melbourne city. They are the core sections to enter city from the north part or south part of Melbourne.