SEARCH ALGORITHMS APPLIED TO CITIZEN SAFETY AND HARRASMENT PREVENTION

UNIVERSIDAD EAFIT

Presentation of the team

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Programmer

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Literature review

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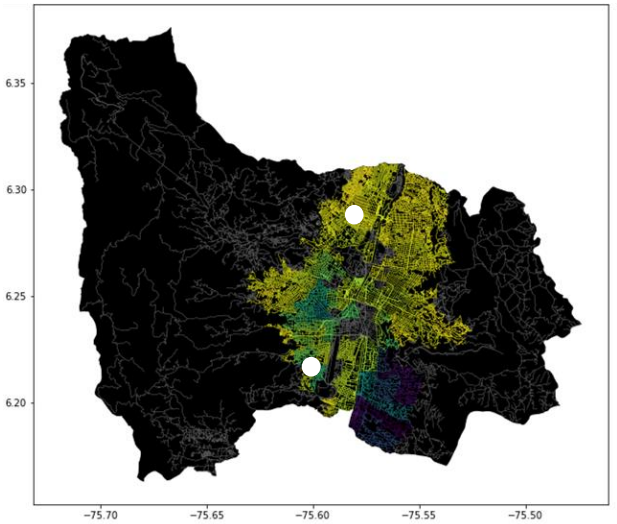
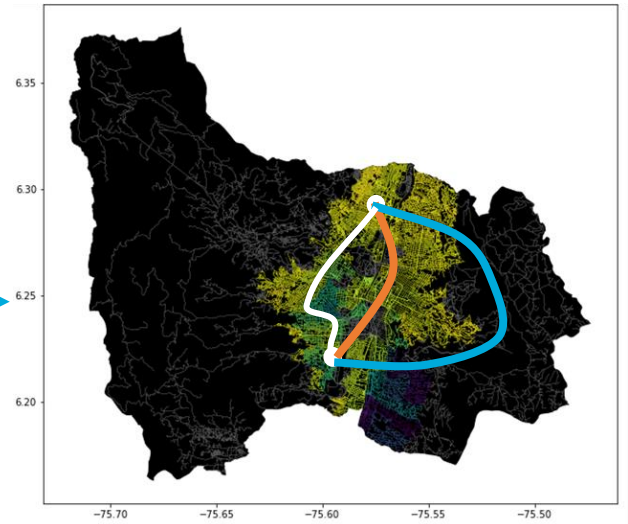
Data preparation

Problem Statement



Shortest path algorithm

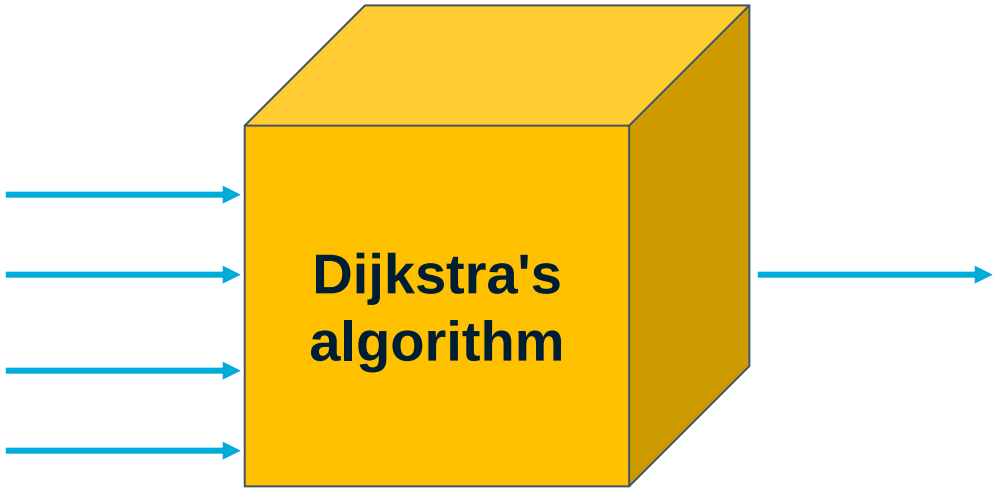


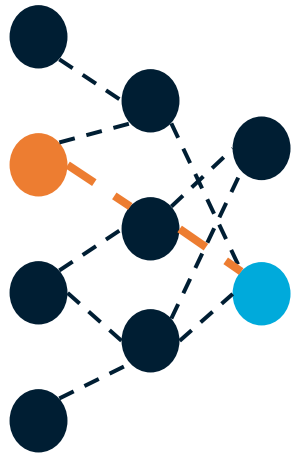
Streets of Medellín, Origin and Destination

Three paths that reduce both the risk of harassment and distance

Solution Algorithm

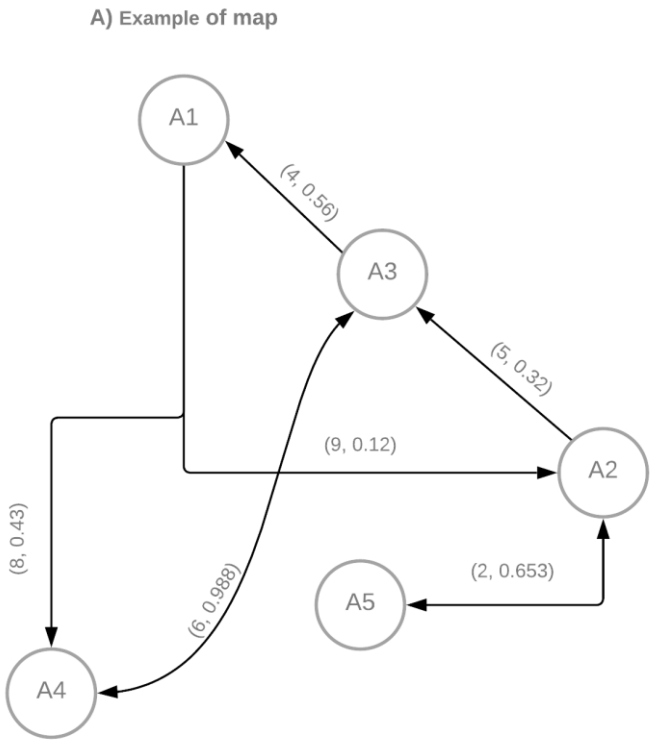
Streets of Medellín, Origin and Destination

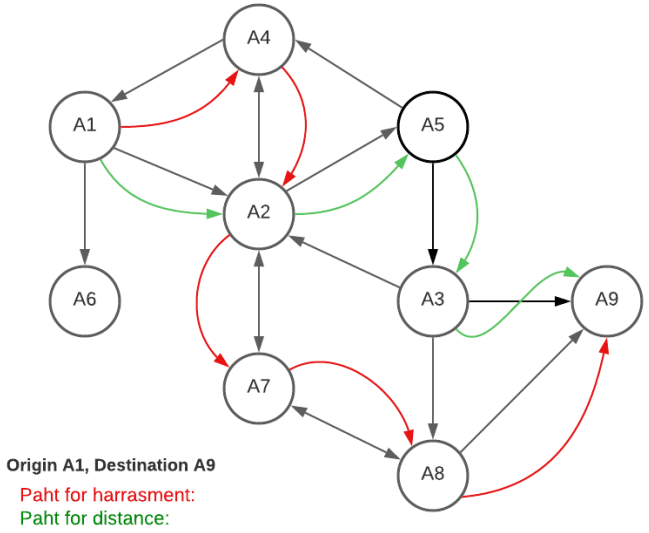


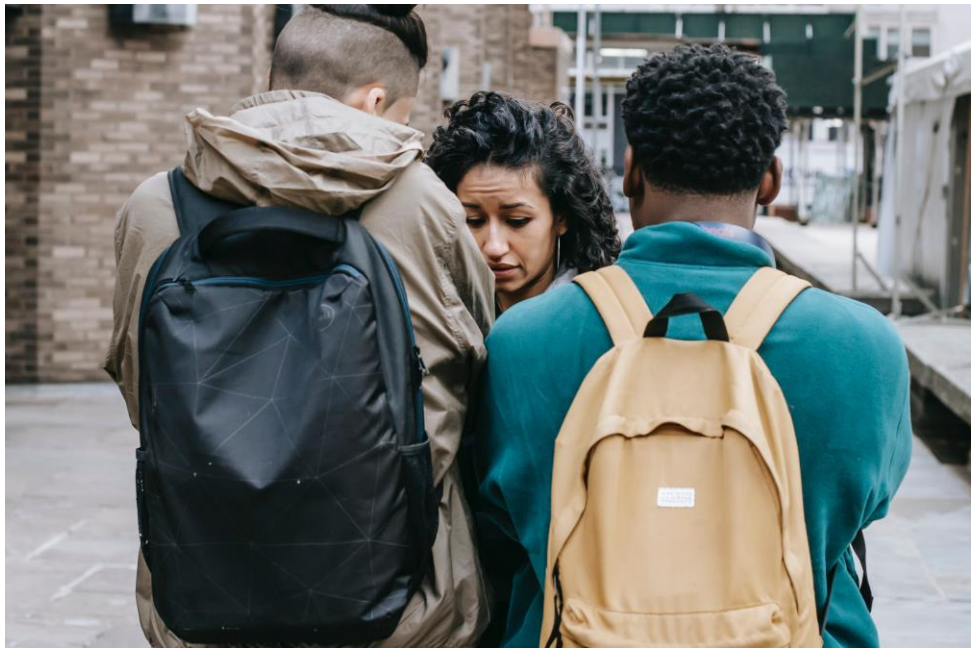


A path that reduces both distance and harassment

Explanation of the algorithm







Dijkstra's algorithm

We used python dictionaries to create the graph, and in our case, we have the key which is the unique origins (in polar cords), and the content which are all the adjacent nodes of the vertex. In that way, we can define a graph.

https://github.com/julianvb03/ST0245-5001

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