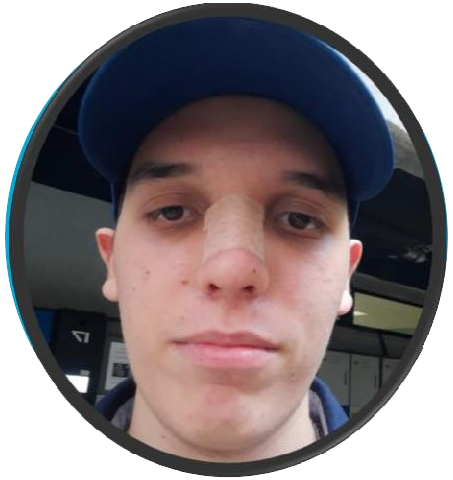
The fast greedy search.

UNIVERSIDAD EAFIT®

Presentation of the team

Maximiliano Sanchez Lara
Code, Technical Report, Leadership, and slides



Santiago Celis Loiaza
Research, Technical report

Andrea Serna
Literature review

Mauricio Toro
Data preparation

GitHub - MaximilianoSanLa/ST0245-002-MaxiSan: ST0245-002

UNIVERSIDAD EAFIT

Other Members

Felipe Gomez Daza
Technical Report

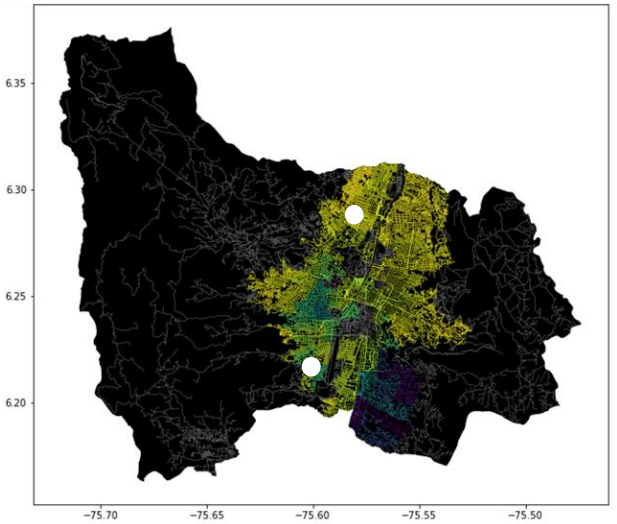
Andrea Serna
Literature review

Mauricio Toro
Data preparation

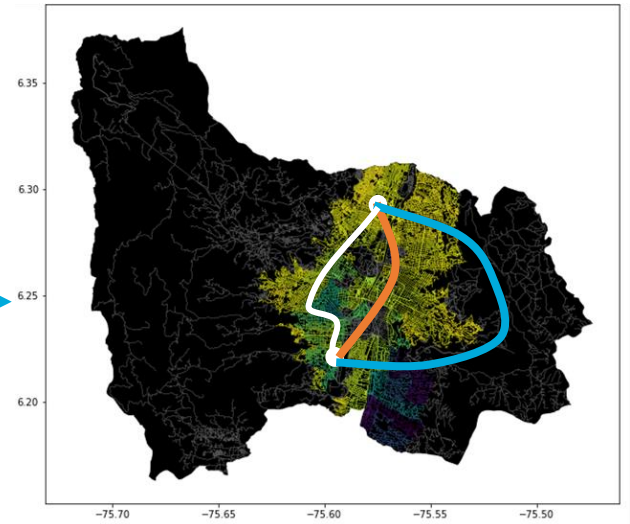
GitHub - MaximilianoSanLa/ST0245-002-MaxiSan: ST0245-002

UNIVERSIDAD EAFIT

Problem Statement



Shortest path algorithm

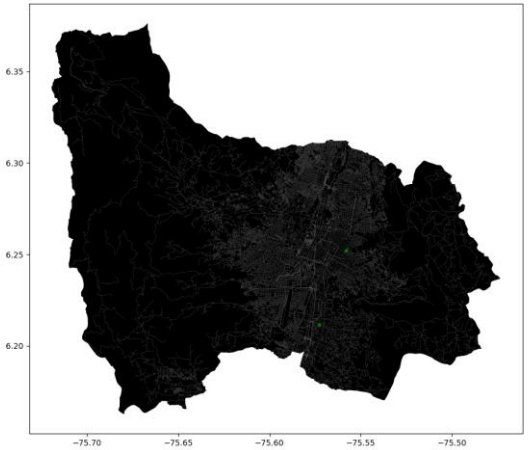


Streets of Medellín, Origin and Destination

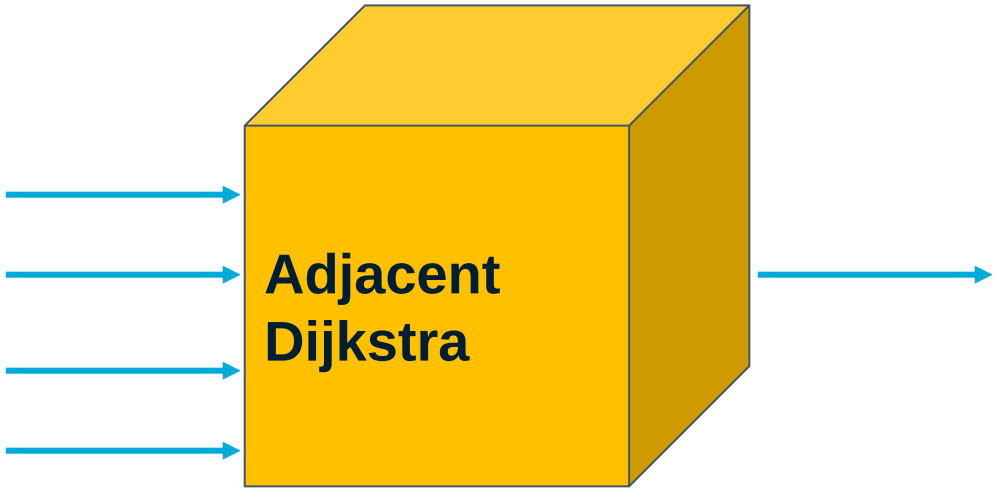
Three paths that reduce both the risk of harassment and distance

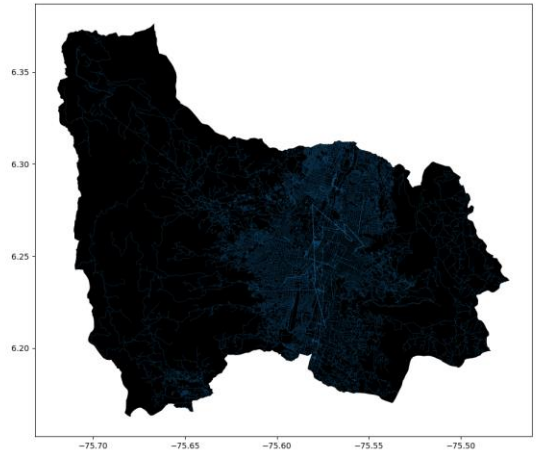
UNIVERSIDAD EAFIT

Solution Algorithm



Streets of Medellín, Origin and Destination

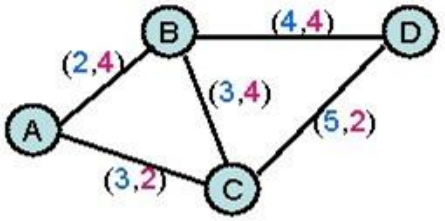


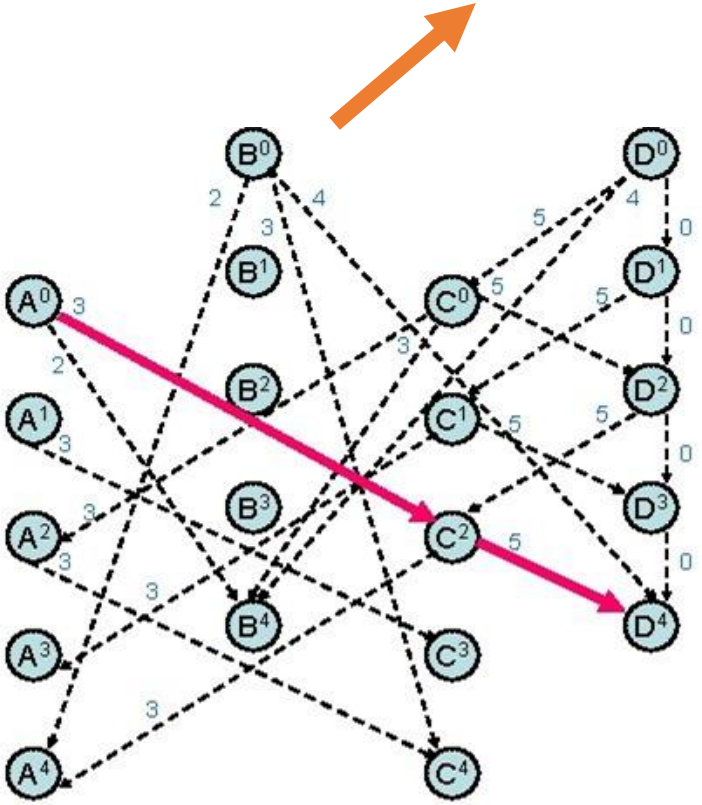


A path that reduces both distance and harassment

Explanation of the algorithm

Do NOT use red on the slides.





Include a high-definition image related to the problem of sexual street harassment.

Name of the algorithm for the path that reduces both harassment and distance.

(*In this semester, it could be DFS, BFS, Dijkstra, A*... **please choose***).

Explain the graphs in your own words

UNIVERSIDAD EAFIT

Complexity of the algorithm

	Time complexity	Complexity of memory
Algorithm name	$O(V^2 * E * 2^V)$	$O(E! * V * E * E * 2^E)$
Algorithm name (if you have tried two)	O(V*V*E*E*E)	O(E!)

Time and memory complexity of the algorithm name. V is...E is... (In this semester, it could be DFS, BFS, Dijkstra, A*). Please explain what V and E mean in this problem. **PLEASE, it is not helpful to put 'n'.**

Keep this title

Complete this slide
For the third installment

First path minimizing d = ???

Do NOT use red on the slides.

Create the table in Powerpoint. Do not copy pixelated screenshots from the white paper, please.

Origin	Destination	Distance (meters)	Risk of harassment (between 0 and 1)
EAFIT University	National University	??	??

Distance and risk of harassment for the path that minimizes d = ??. Execution time of ?? seconds.

Explain the tables in your own words

The font size must be at least 22 points.

UNIVERSIDAD EAFIT

Keep this title

Complete this slide
For the third installment

Second path minimizing d = ???

Do NOT use red on the slides.

Create the table in Powerpoint. Do not copy pixelated screenshots of the white paper, please.

Origin	Destination	Distance (meters)	Risk of harassment (between 0 and 1)
EAFIT University	National University	??	??

Distance and risk of harassment for the path that minimizes d = ??. Execution time of ?? seconds.

Explain the tables in your own words

The font size must be at least 22 points.

UNIVERSIDAD EAFIT

Keep this title

Complete this slide
For the third installment

Third path minimizing d = ???

Do NOT use red on the slides.

Create the table in Powerpoint. Do not copy pixelated screenshots of the white paper, please.

Origin	Destination	Distance (meters)	Risk of harassment (between 0 and 1)
EAFIT University	National University	??	??

Distance and risk of harassment for the path that minimizes d = ??. Execution time of ?? seconds.

Explain the tables in your own words

The font size must be at least 22 points.

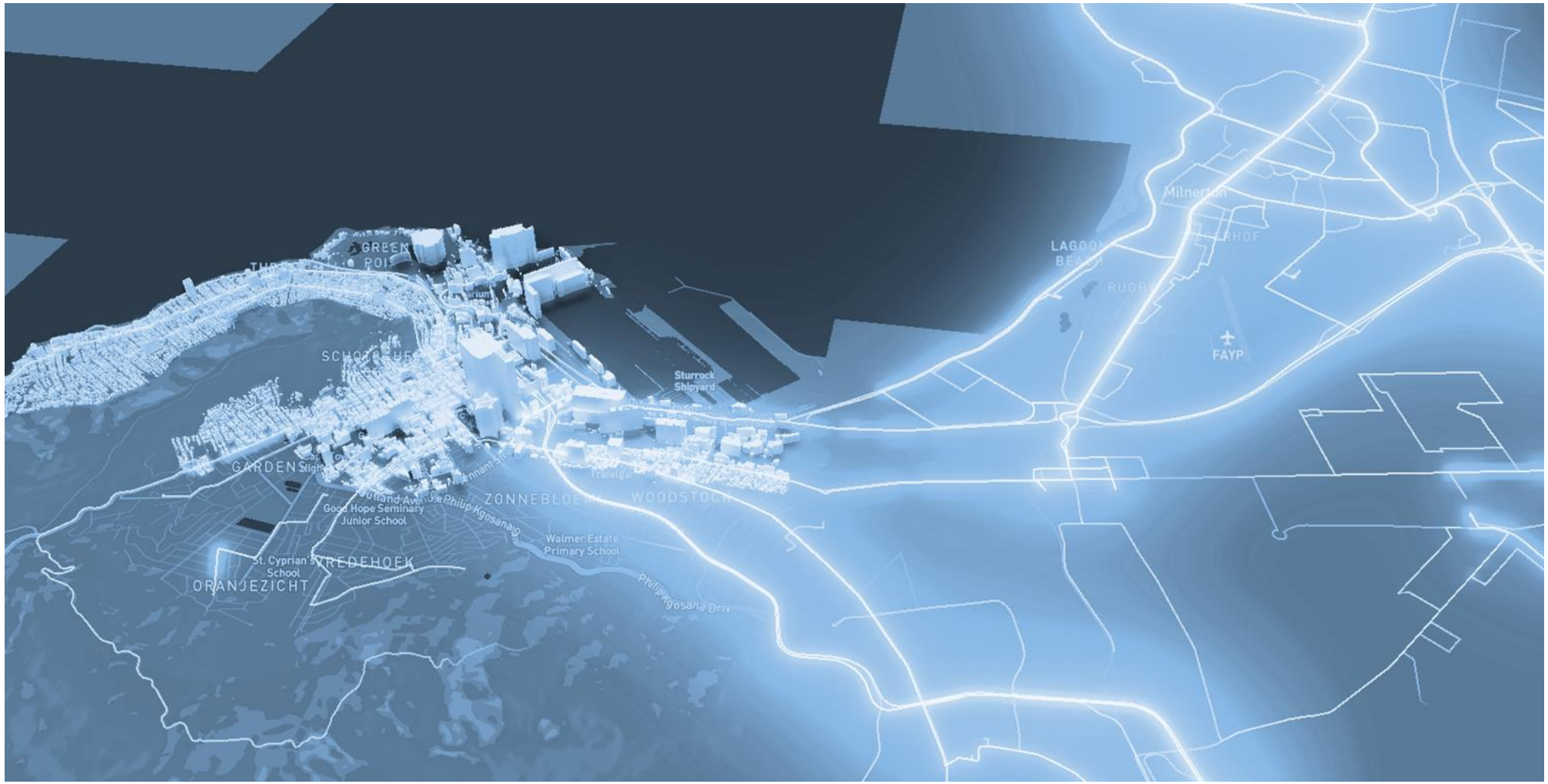
UNIVERSIDAD EAFIT

Keep this title

Complete this slide
For the third installment

Visual comparison of the three paths

Use a library to draw the map and plot the three roads between Eafit and Universidad Nacional. For example, use geopandas, pydeck or google maps.



Do NOT use red on the slides.

The font size must be at least 22 points.

UNIVERSIDAD EAFIT

Future work directions

Keep this title

Complete this slide
For the third installment

Do NOT use red on the slides.

Please name the courses in which you could continue to work on this project.

Probability

Other risk estimates

Optimization 1

Optimization Bi target

Statistics 2

MV risk estimates

M & S 4

Traffic Estimation

Please tell us what you could do, in the following courses, to improve this project.

Delete this if you study Informatics engineering

The font size must be at least 22 points.

You can add, delete or change some future work addresses

UNIVERSIDAD EAFIT

Future work directions

Keep this title

Complete this slide
For the third installment

Do NOT use red on the slides.

Please name the courses in which you could continue to work on this project.

Databases

- Other variables

Delete this if you study Mathematics Engineering

Project 1

- Web application

Software Engineering

- Mobile application

Project 2

- Include ML or VR

Please tell us what you could do, in the following courses, to improve this project.

The font size must be at least 22 points.

You can add, delete or change some future work addresses

UNIVERSIDAD EAFIT

Report accepted in OSF.IO

Keep this title

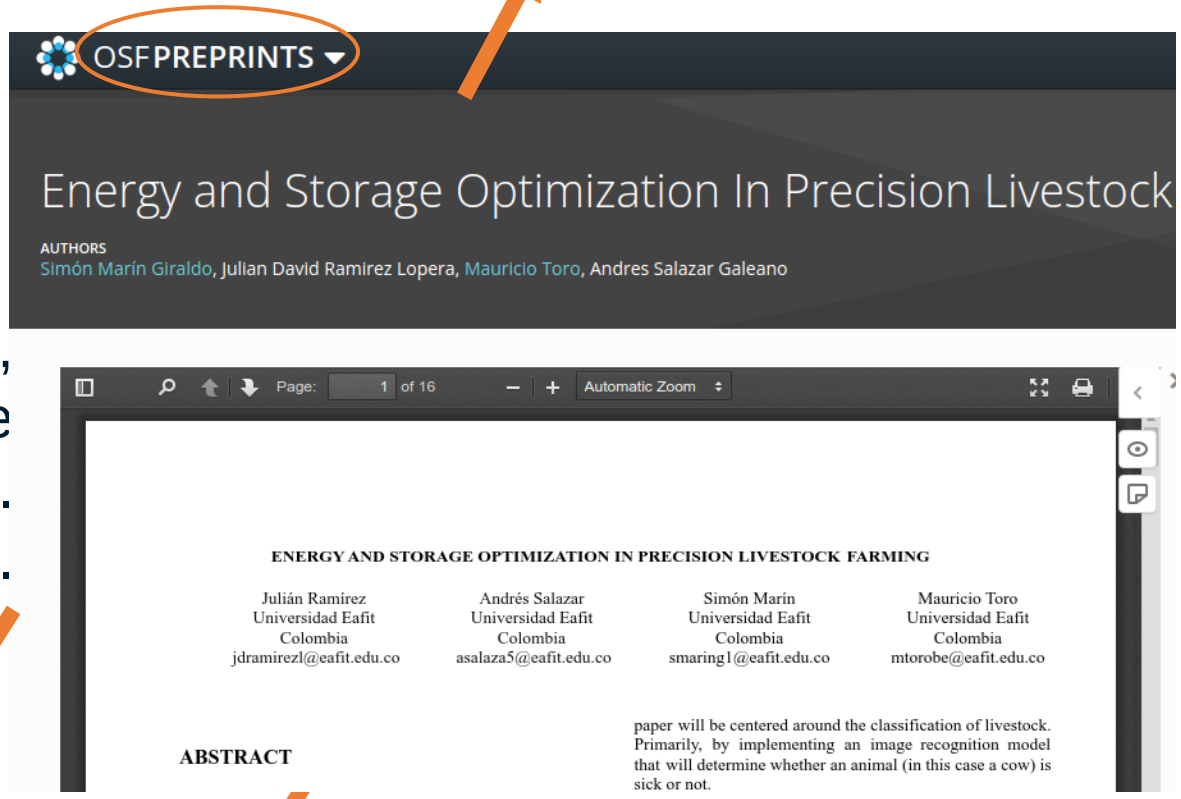
Complete this slide
For the third installment

Delete this slide if your report was not submitted to OSF.

This is an example screenshot from a previous report

Include the report citation in OSF PREPRINTS and the link. No, not in OSF projects, it is in OSF Preprints.

Julián Ramírez, Andrés Salazar, Simón Marín, Mauricio Toro. Energy and Storage Optimization in Precision Livestock Farming. Technical Report, Universidad EAFIT, 2021. https://doi.org/10.31219/osf.io/du8yt



Include a screenshot of your published report on osf.io and remove the circle

The font size must be at least 22 points.

Include monitors and teachers among the authors, please.

UNIVERSIDAD EAFIT

You can change this picture

Complete this slide
For the third installment

Do NOT use red on the slides.

Don't forget your scholarship acknowledgements (if you have one) For others, for those who pay your tuition fees

THANK YOU!

With the support of

The first two authors were supported by the Sapiencia grant, financed by the municipality of Medellín. All authors are grateful to the Vice Rector's Office for Discovery and Creation, Universidad EAFIT, for their support in this research.

The font size must be at least 22 points.