

Final Project Scoping

Briefly describe your final project, articulating a research question or hypothesis, and the inputs and transformations you need to do it in order to complete the project.

Final Project:

I want to make a hiking map that can help visitors visiting the Grand Canyon in terms of following recommended routes, be aware of dangerous areas to avoid, walking/biking distances around the total area and so on. For this project my goal is to end up with an interactive map which contains plots of the following elements as well as interactive routes along the tracks.

What I want GIS to help me answer:

- Location → identifying what exists at a specific location
- Routing → network analysis on the best way to travel somewhere

What should the map contain?

- Dangerous areas (distances)
- Green areas (remote sensing)
- Different recommended routes (routing)
- Walking / biking distance (isochrones)
- Viewpoints (tmap)

Inputs and transformation:

- Map of Grand Canyon (the total area)
- Coordinates of dangerous areas
- Recommended routes from <https://www.railstotrails.org/our-work/trail-mapping-and-gis/>
- Popular areas to visit in order to make the viewpoints