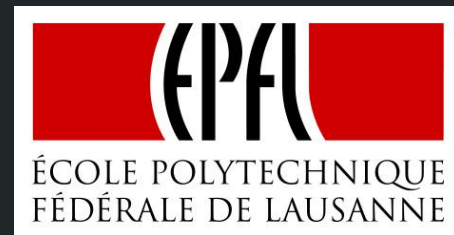


Analysing Swiss Public Transport Network

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Transforming raw data to graph

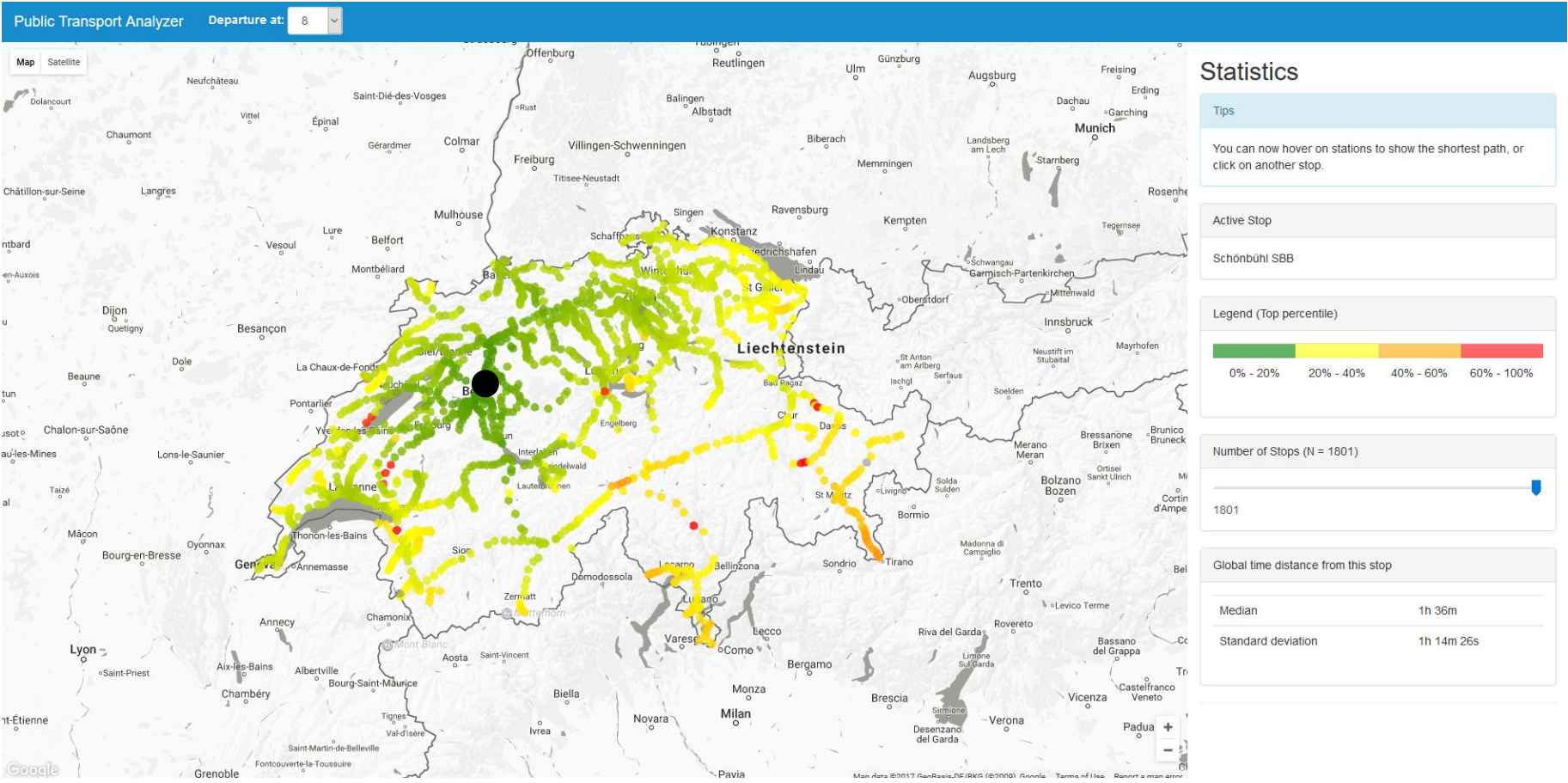
Public Transportation Feed for Switzerland (trains)

- 7000+ stops and 4 million+ connections
- Removed all stops outside Switzerland, and compressed the remaining ones (e.g. merging related stops)
- Final graph has 1800+ *unique* stops, making shortest paths computation bearable (near real time)

Challenges

- Corrupt data
- Build a graph with a bearable memory footprint
- Google Maps API
 - Not efficient with large datasets
 - Restricted API
- Handle shortest paths queries in a computationally efficient way
- Finding an appropriate color scale
 - Harder than it seems: Switzerland is small and very centered around Zürich/Bern

Visualization



Statistics

Tips

You can now hover on stations to show the shortest path, or click on another stop.

Active Stop

Schönbühl SBB

Legend (Top percentile)

0% - 20%

20% - 40%

40% - 60%

60% - 100%

Number of Stops (N = 1801)

1801

Global time distance from this stop

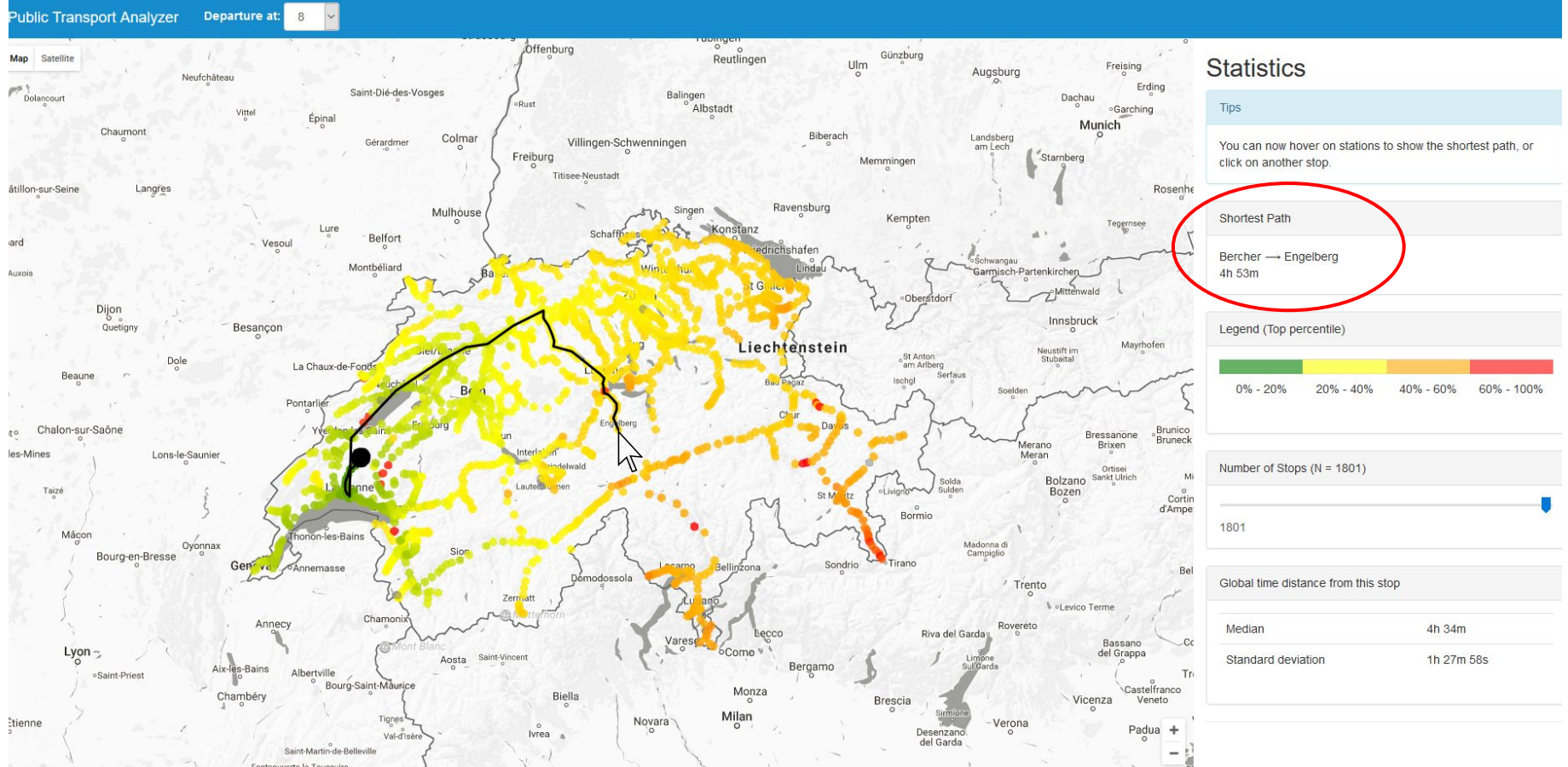
Median

1h 36m

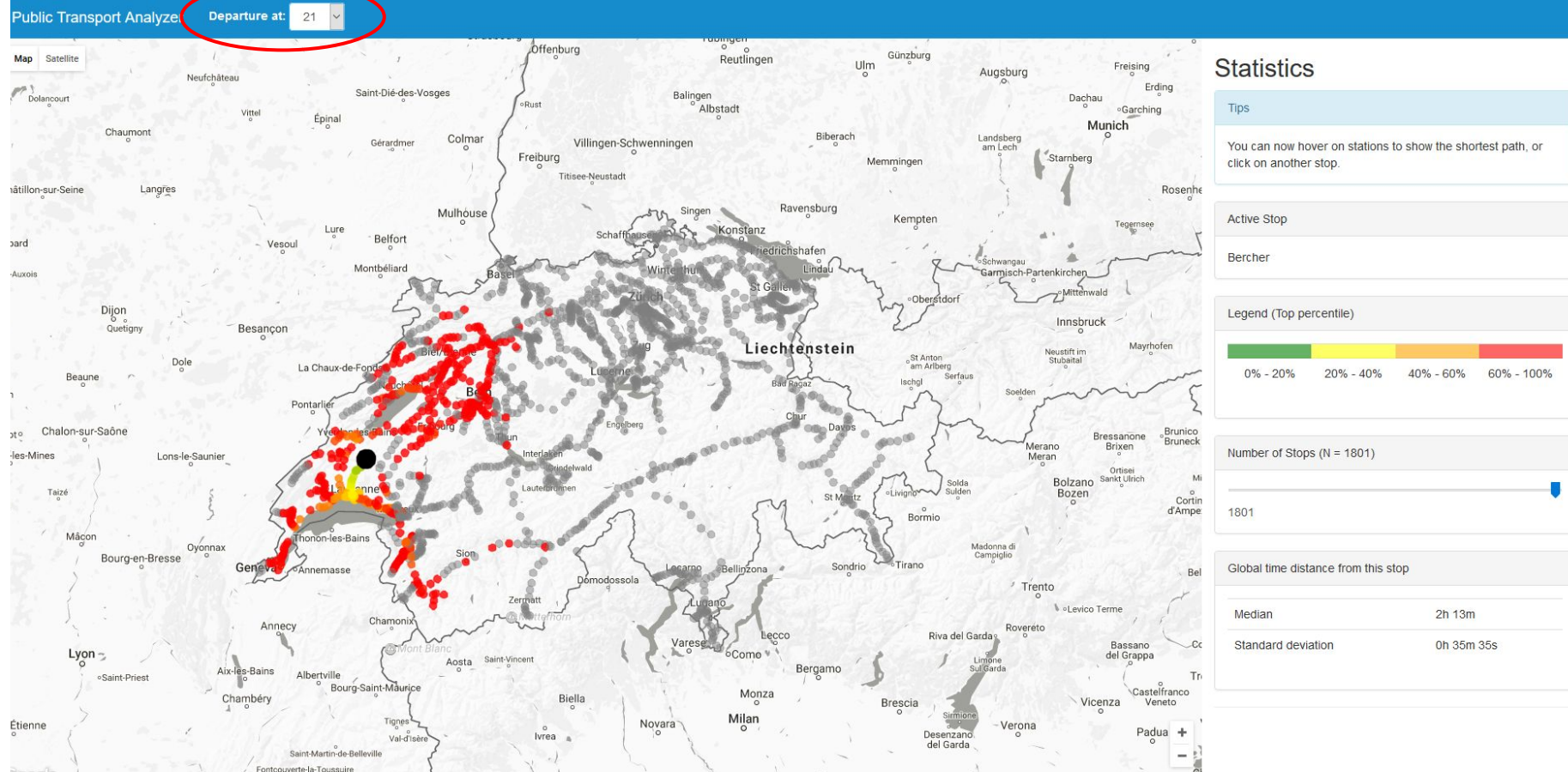
Standard deviation

1h 14m 26s

Shortest route



Time of departure (21h)



Zooming and pruning

