TYROL STP

EXPLORE TYROL LIKE NEVER BEFORE

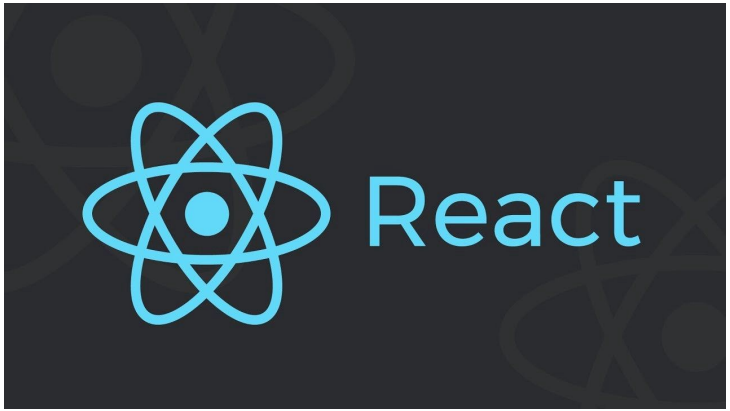
S(mart) T(rip) P(lanner) for Tyrol and South Tyrol

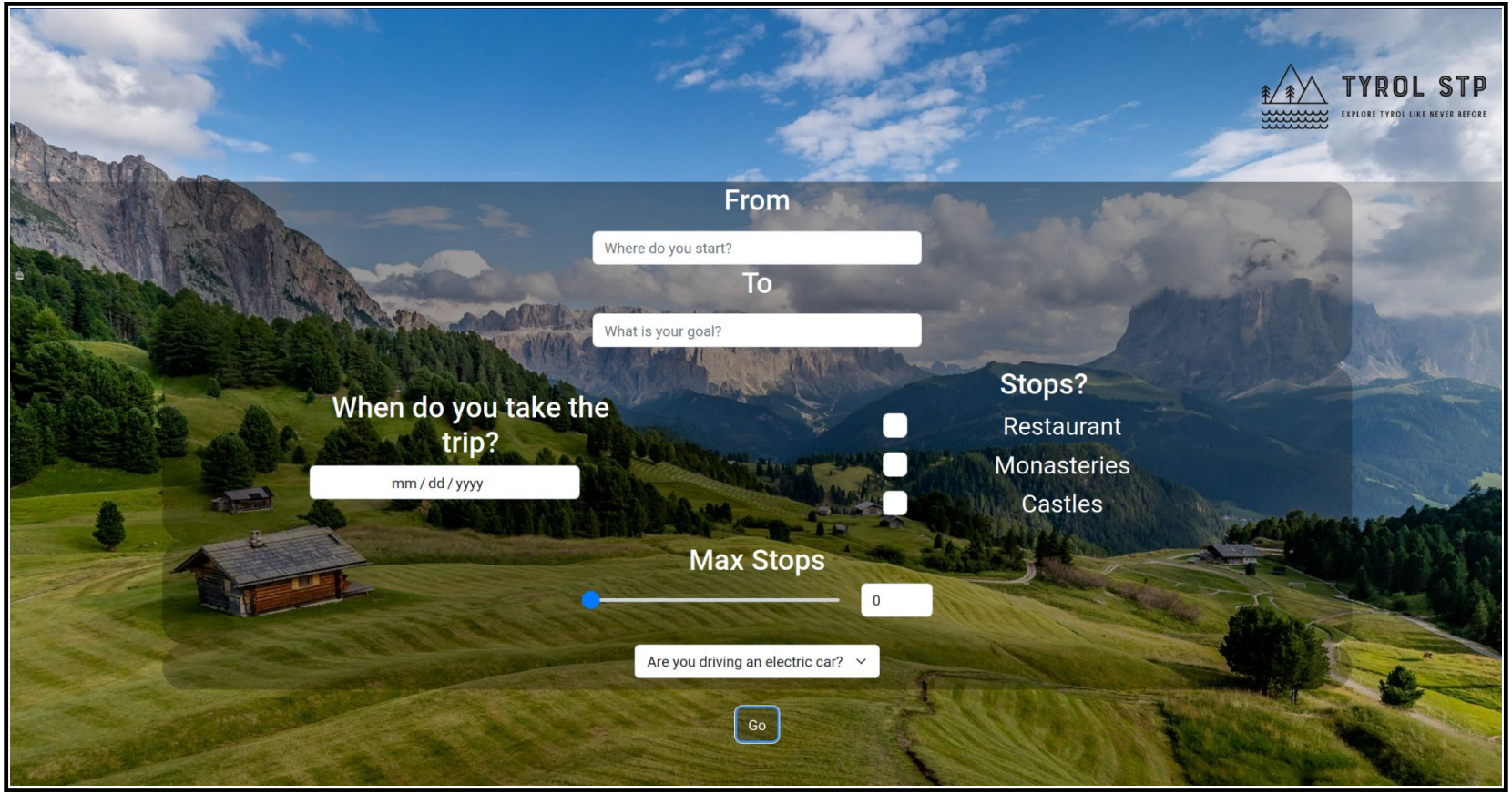
Enrico Trombetta, Devashish Kamble, Jan-Luca Schröder


TYROL STP
EXPLORE TYROL LIKE NEVER BEFORE
Tyrol and South Tyrol!
Let's Plan!

Backend

Frontend




TYROL STP
EXPLORE TYROL LIKE NEVER BEFORE
From
Where do you start?
To
What is your goal?
When do you take the trip?
mm / dd / yyyy
Stops?
Restaurant
Monasteries
Castles
Max Stops
0
Are you driving an electric car?
Go

The Recommendation Algorithm

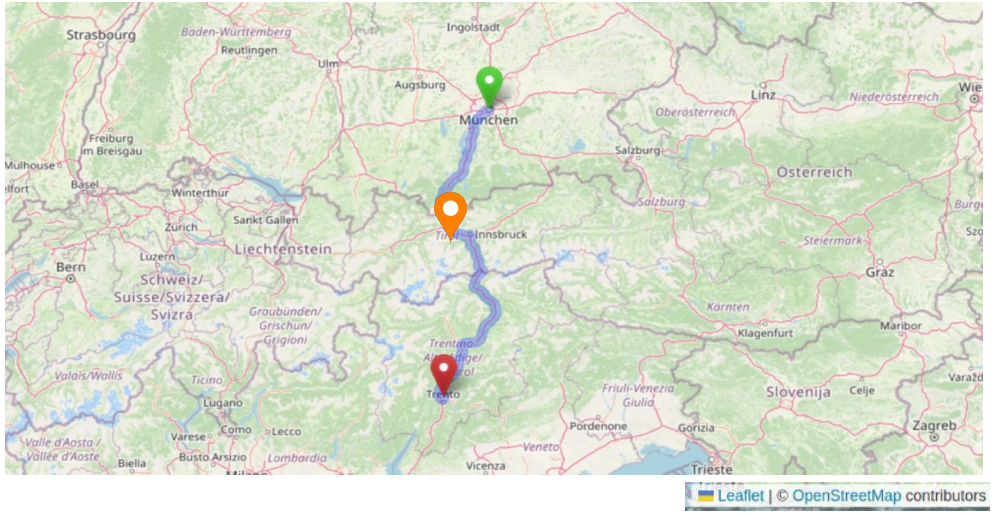
- Given a departure and an arrival city, find a “starting” path (“**S_{min}**”)
  - Bolzano’s mobility opendata to extract **parking sites**
- Take all matching points of interests (POIs) in an enclosing circle centered at the midpoint of the two cities
  - SPARQL to perform classification and clustering of spatial circumscription
- Filter the **100s** of POIs by proximity to **S_{min}** by preferring no more than **P_{max}** points (< 5 in practice)
- Re-calculate the route by adding those POIs as stops
  - Up to 4! possibilities,
- Return all suggested routes

SPARQL Queries API

```
PREFIX schema: <https://schema.org/>
PREFIX odta: <http://odta.io/voc>
PREFIX omgeo: <http://www.ontotext.com/owlim/geo#>
select ?s ?lat ?lon from <http://onlim.com/graph/68a1b568fa18593135cb243cda315c33> where {{
        ?s a schema:Tavern;
           schema:geo ?nearGeo.

        ?nearGeo omgeo:nearby({lat} {lon} {radius});
                 schema:latitude ?lat;
                 schema:longitude ?lon.
}}

LIMIT 10
```



List of Locations:

- Start: München
- Stop: Charging station
- End: Trento

Thank you for your attention!