

Swiss Road Accident Modeling

21643

Road Accidents (2017) [1]

230

Road Deaths (2017) [1]

3654

Seriously Injured (2017) [1]

Our goals:

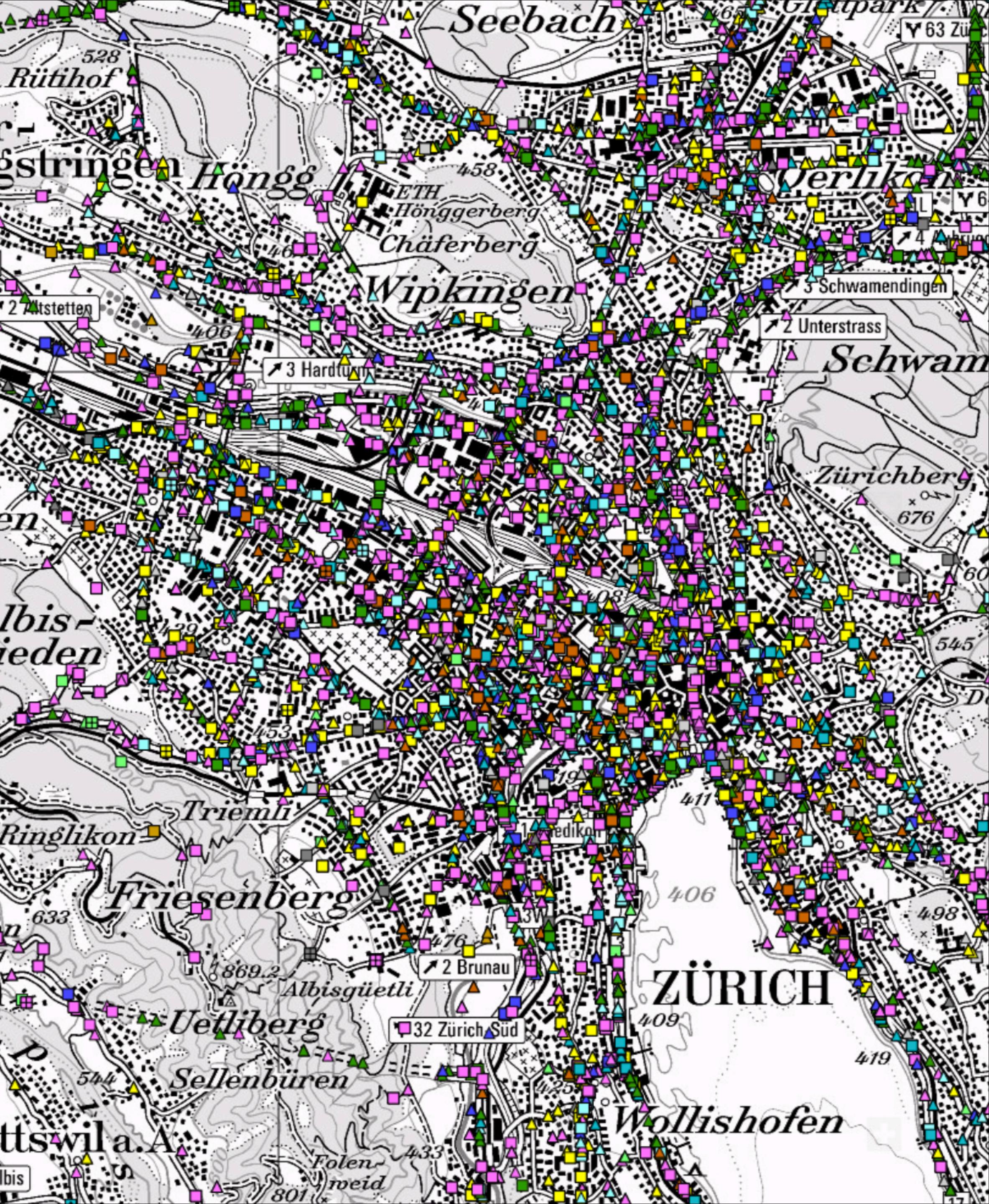
- Model accident probability on Swiss road segments
 - Gain insight on factors influencing car accident probabilities
 - In particular, road layout
 - Investigate possibilities for real-time prediction

Previous Work:

High classification accuracy for road accidents in Iowa for given road segments and times [0]

Model:

- Evaluate several models (e.g. Deep Learning, SVMs, Random Forests)
- Main datasets:
 - Swiss Road Accidents Dataset [1]
 - Weather Data (various sources)
 - Map data (OpenStreetMap)



[0] Yuan, Zhuoning, et al. "Predicting traffic accidents through heterogeneous urban data: A case study." Proceedings of the 6th International Workshop on Urban Computing (UrbComp 2017), Halifax, NS, Canada. Vol. 14. 2017.

[1] Geodatenmodell "RoadTrafficAccidentLocation_V1", Minimales Geodatenmodell zum Geobasisdatensatz "Strassenverkehrsunfallorte", Identifikator 95.1. Bundesamt für Strassen.

Image right: Maps of Switzerland, Federal Office of Topography (map.geo.admin.ch)