



BA/SA/Group/Lab:

Worldwide Sports Route Generation

A large number of outdoor sports apps exists on the market. Many of them allow you to track your routes and evaluate your workouts. Some apps enable sharing routes between users and few tools exist for automatic route generation. However, the latter are mostly quite simple and yield unsatisfying results.¹ The typical exercise procedure therefore starts with manual planning or selection of a route. As this is an undesired overhead, people tend to use the same routes over and over again, although this is rather boring.

We think that route generation for outdoor sports like workouts, hiking or even just sightseeing can be done in much better ways using a smartphone. In past theses, we created an Android app² which generates routes for running, biking, hiking and other outdoor sports in Switzerland.

The goal of this thesis is to extend the app's functionality. Most importantly, it should be possible to generate routes anywhere in the world. Further ideas include adapting routes on the fly, when a user deviates from the foreseen path, and improving the pathfinding for different activities.



Requirements

- Creative thinking and good programming skills are advantageous to successfully work on this topic.
- The student(s) should be able to work independently!

Interested? Please contact me for more details!

Contact

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¹ <http://www.plotaroute.com/>
<http://www.routeloops.com/>

² *Smart Route* App in the Google Play Store: <https://play.google.com/store/apps/details?id=sd.smartroute>