



Almighty Housing Search

Looking for houses and apartments is not as much fun as it could be. Websites like Homegate and ImmoScout present some filtering options, but we find that they do not give us a lot of information about the location of the objects. Also, the presentation of the results is somewhat boring, since it is just a list of the results with no visual representation of other factors such as commutes.

In previous projects, a new website and an accompanying app to display housing ads have been developed. For this project, several different directions to build upon and expand this website and app are being looked into. For example, the work of a previous project to calculate ratings based on public transport connections can be adapted and included in the ranking of the housing search results. Different points of interest such as grocery stores could influence the ranking of the results based on their distance and the preferences of the user.

Requirements: Programming experience is an advantage. During your thesis, you will meet on a weekly basis with your advisors, to discuss progress and open questions.

Interested? Please contact us for more details!

Contacts

- Simon Tanner: simtanner@ethz.ch, ETZ G97



Detailed Project Outline

We denote the following primary tasks mandatory (on the right side you find a rough estimate for the time that we allocate to the respective task):

- Literature research (★)
- Analyze existing project and back-end infrastructure (★★)
- Calculate commute time to workplace for different means of transport and integrate them into *HomeDetective* scores. (★★★)
- Improve generation of heatmaps for public transport. (★★★★★)
- Implementation of heatmaps for cars, bikes, and pedestrians. (★★★★★★)
- Improve PoI database (webcrawlers/new data sources) (★★)
- Include rating from heatmaps in website/app (score system/heatmaps) (★★)
- Further extension and modification of the *HomeDetective* website and app (★★★★★)
- Writing report (★★)
- Prepare presentation (★)

Extensions

Apart from these requirements, we can think of plenty of ways to extend *HomeDetective* with cool features. Of course, you may add your own ideas to this non-exhaustive enumeration:

- Display routing information for commute and other points of interest on the map.