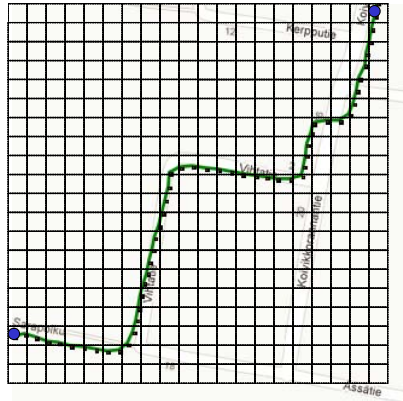


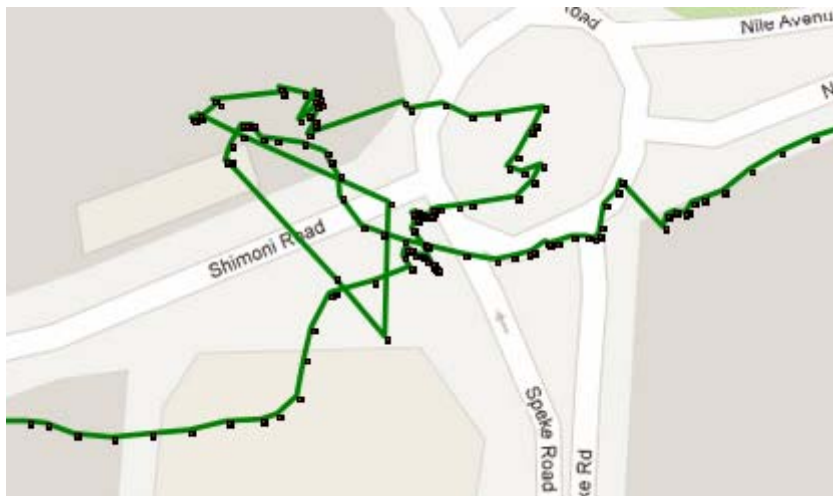
# Location-Aware Mobile Application Design

Exercises 6/8, 26.4.2013

- Routes can be approximated by reducing the number of points as follows. Select a subset of the points so that given cost function is minimized. Optimal solution can be found using dynamic programming. How we can solve how many points should be selected? Explain the main idea and demonstrate it with the following example.



- Rule-based move type analysis method was presented based on *speed variance* within the segments. However, it does not detect the following stop due to strong GPS errors inside building. Give formulation for alternative feature that can differentiate between slow moving from stopping.



- Recommendation systems are widely used and Google, Amazon, YouTube and FB adverts were used as examples. Find more examples of recommend systems that were not yet mentioned, and prepare demonstration example in PPT. At least one example where you find the recommendation useful, and one example what you find less useful (or even annoying).
- During lectures, four aspects of relevance were presented: P=Position, I=Interest, N=Network, T=Time. Test Mopsi system (web or mobile) in various locations and generate one recommendation example that demonstrates when each of the four aspects is the deciding factor for finding relevant item.
- Demonstrate your contribution of the course project Student system.