

## Saliency Detection in Large Point Sets – Supplementary 2

### Saliency and application results for the Hannover University

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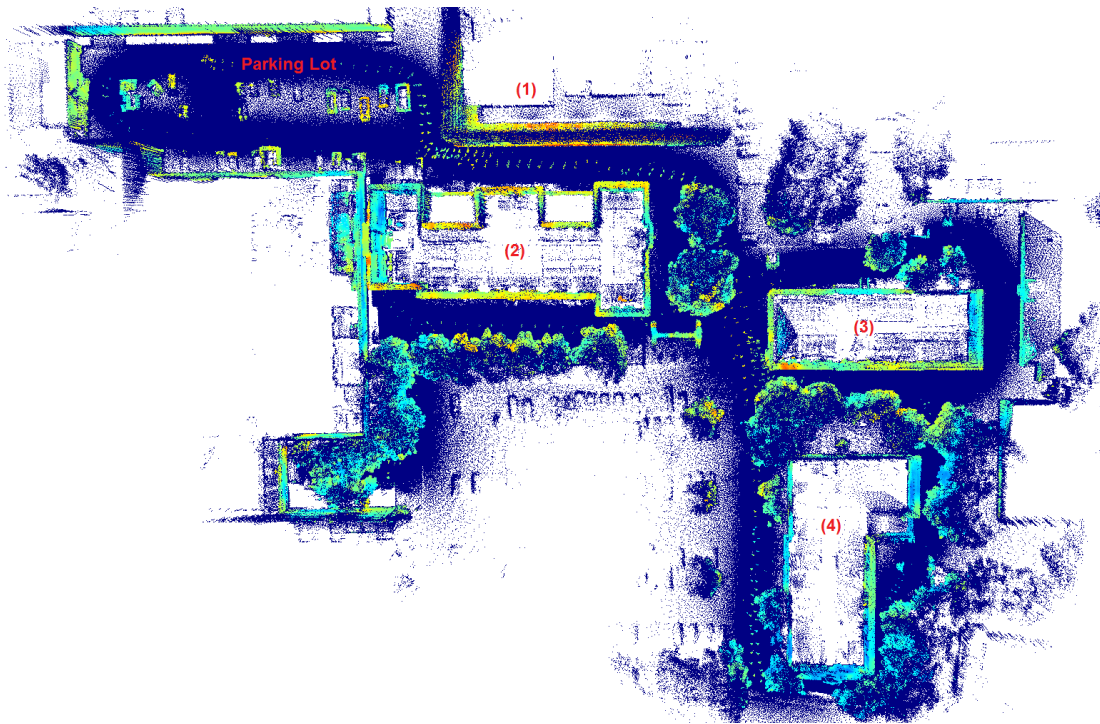
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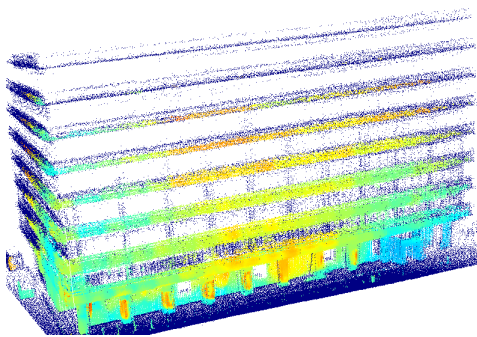
In the paper we demonstrated our saliency results and applications for two city scans. Hereafter, we show an additional example. Figure 1 shows our saliency for the Hannover University campus. The zoomed-in views show the saliency for all of the scanned buildings (1-4). Our saliency algorithm identifies the most important campus buildings, such as the Information Processing department (b), which is unique due to its height, and the adjacent Civil Engineering department (c), which has a unique geometry. The Microtechnology Institute (d) is highlighted as well, especially its entrance, due to its columns and the arc above it. Figure 2 shows a view on the campus from Google Earth.

**Viewpoint selection:** Figure 3 shows the most informative viewpoints found by our algorithm for the campus of Hannover University. The best view (top left) is a view from the park on the Information Processing Institute and the adjacent Civil Engineering Department. This view matches one of the pictures of the campus available on Google maps. There are only two images of the campus in Google maps, both of the same building. Our second view (bottom left) shows the alley between these two buildings. The third view shows the two buildings as viewed from the parking lot. The last two views (bottom row from left to right) show the back facade of the Civil Engineering department and the main entrance to the Microtechnology Institute.

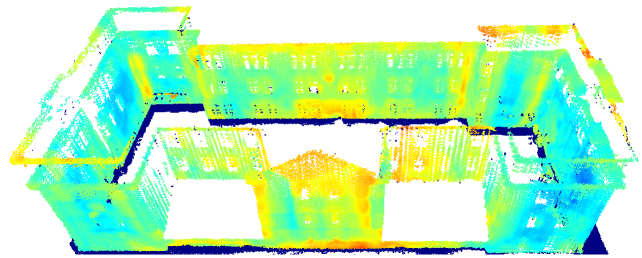
**Producing the most informative tour:** The path produced for Hannover University is shown in Figure 4(b). While walking along this path, the main buildings of the campus, such as the Information Processing building, the Civil Engineering building and the Microtechnology building, are viewed. The walk is along the main alleys of the campus. As there are many pedestrians in the campus alleys, our path is wiggly, avoiding collisions.



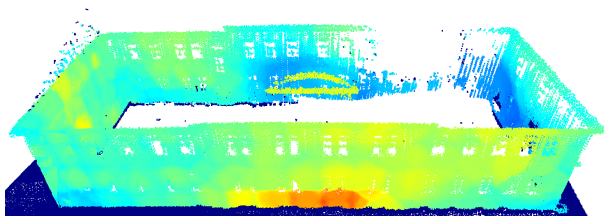
(a) The saliency of the campus



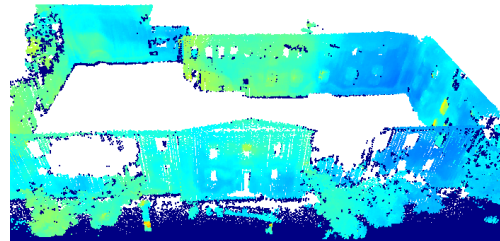
(b) The Information Processing Institute - building (1)



(c) The Civil Engineering faculty - building (2)



(d) The Microtechnology Institute - building (3)



(e) Building (4)

Figure 1. **The saliency for the Hannover University campus (8M points).** The facades of the main campus buildings are found to be salient.

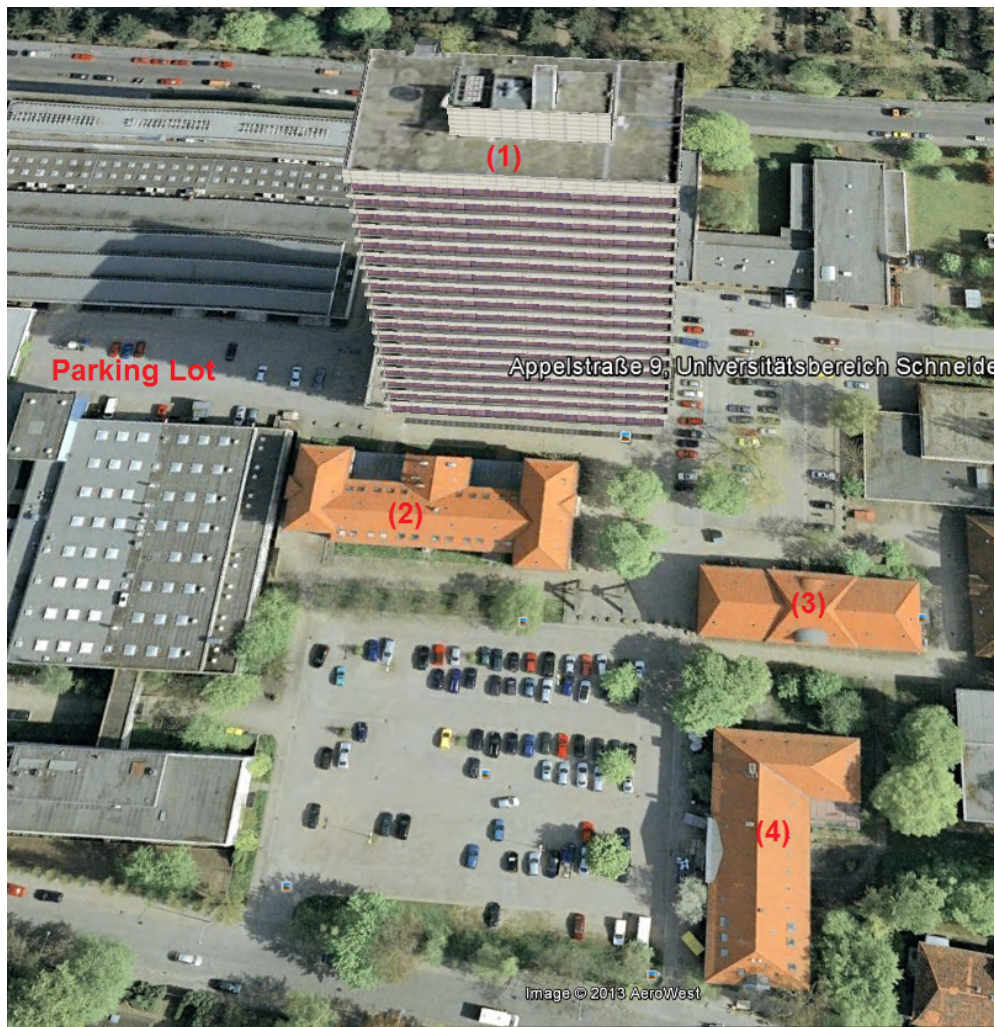
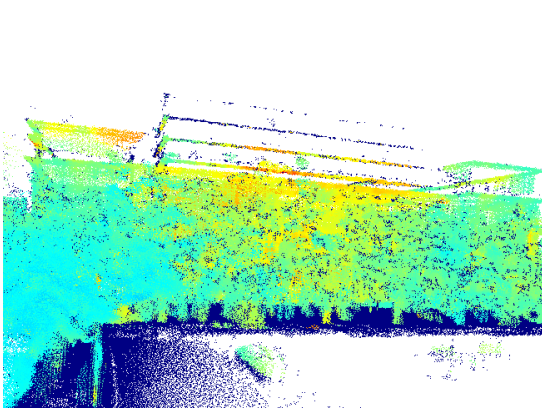


Figure 2. The Hannover University campus as it appears in Google Earth.





Our most informative viewpoint matches a view on the campus from Google Earth

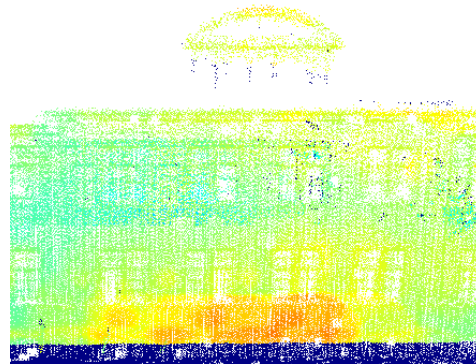
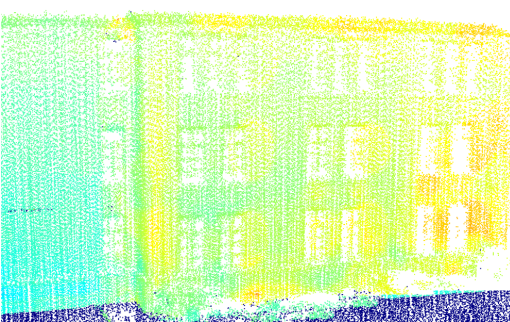
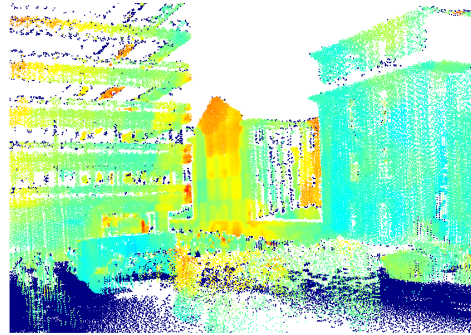
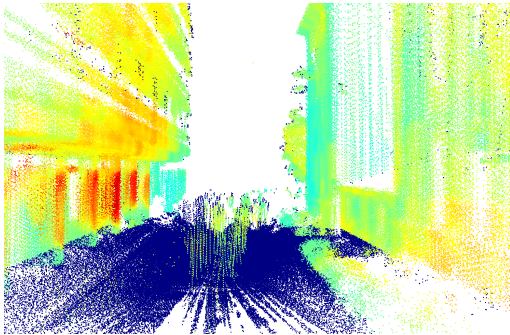
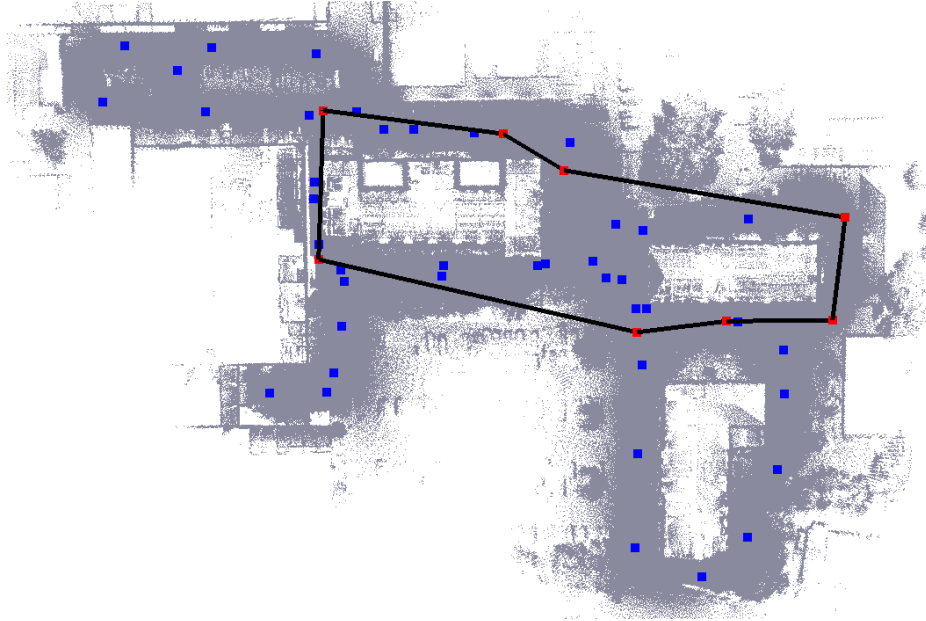
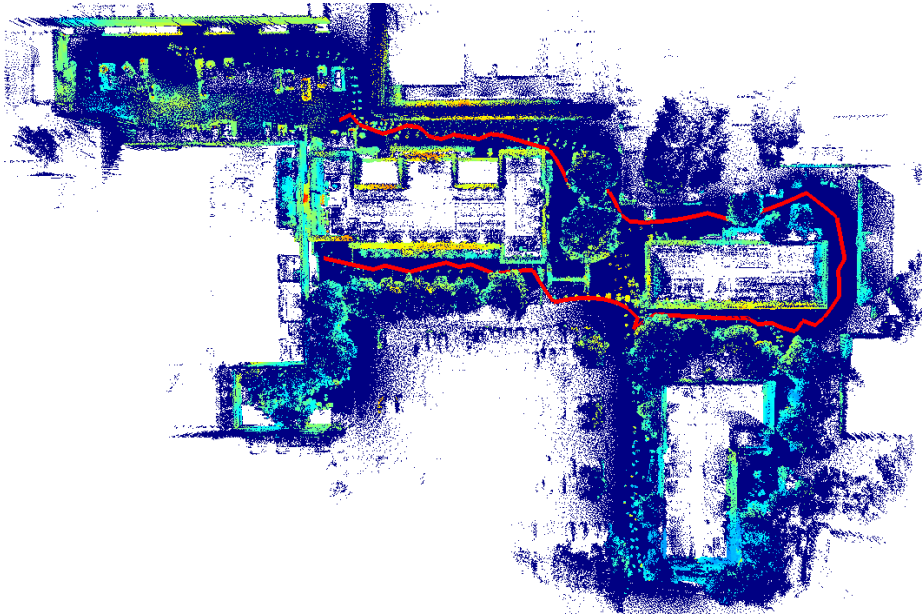


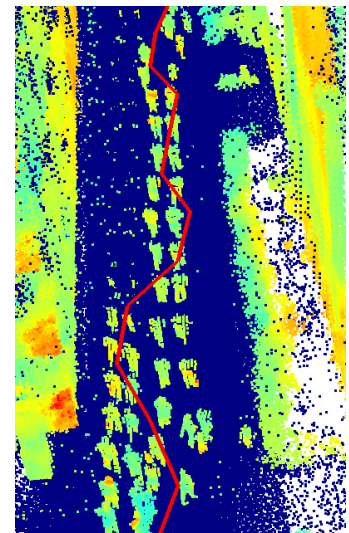
Figure 3. **Viewpoint selection.** The most informative viewpoints generated by our algorithm for the Hannover campus capture the most interesting faculties of the campus from various angles.



(a) The candidate points (red and blue) and the shortest path passing through the points in  $L_s$  (colored in red)



(b) The generated path



(c) A zoom in on the path

Figure 4. **The recommended tour for Hannover campus.** Walking along the suggested path leads the tourist through all the highlights of the campus. As can be seen in (c) the path is wiggly. This is due to collision avoidance with pedestrians walking on the alleys.