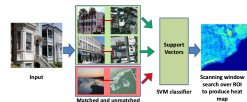


Cross-View Image Geolocalization

T.-Y. Lin, S. Belongie, and J. Hays (CVPR 2013)



(a) Feature Averaging.



(b) Discriminative translation.

- ▶ Current approach to image geolocalization problem:
 - ▶ By matching the query image to a database of georeferenced photographs
 - ▶ Only works for famous landmarks, but not for the unremarkable scenes
- ▶ Relationship between aerial view and ground-level data
- ▶ Overhead appearance and land cover survey data
 - ▶ Densely available for nearly all of the Earth
 - ▶ Rich enough for unambiguous matching
- ▶ A cross-view feature translation approach
- ▶ A new dataset with ground-level, aerial, and land covering attribute images for training
- ▶ An aerial image classifier based on ground level scene matches
- ▶ Output of a query: a probability density over the region of interest
- ▶ Experiments over a 1600 km² region containing a variety of scenes and land cover types