Automatic Dense Visual Semantic Mapping from Street-Level Imagery

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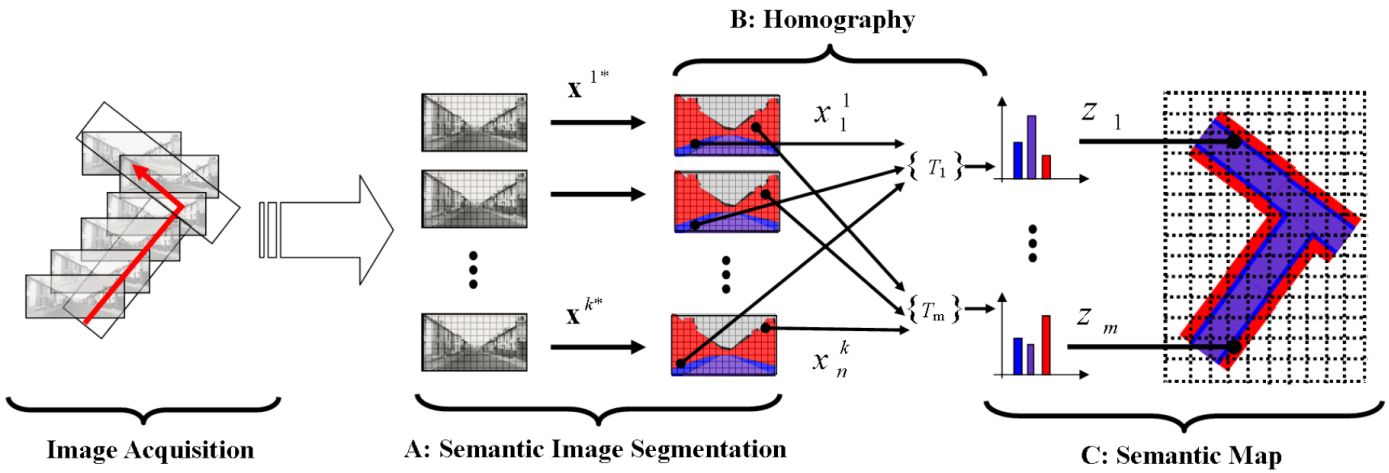

- Describes a method for producing a semantic map from multi-view street-level imagery
- Defines a semantic map as an overhead, or birds eye view of a region with associated semantic object labels, such as car, road and pavement

- Formulates the problem using two conditional random fields:
  - The first is used to model the semantic image segmentation of the street view imagery treating each image independently
  - The outputs of this stage are then aggregated over many images to form the input for our semantic map that is a second random field defined over a ground plane
  - Each image is related by a geometrical function that back projects a region from the street view image into the overhead ground plane map.

- Evaluates on introduced and make publicly available, a new dataset created from real world data