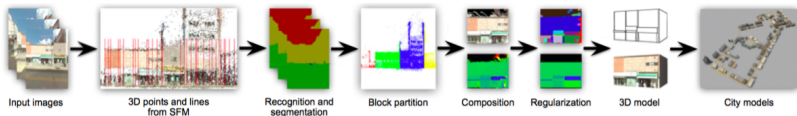


# Image-based Street-side City Modeling

J. Xiao, T. Fang, P. Zhao, M. Lhuillier, L. Quan (SIGGRAPH 2009)



- ▶ Proposes an automatic approach to generate street-side 3D photo-realistic models from images captured along the streets at ground level
- ▶ Develops a multi-view semantic segmentation method that recognizes and segments each image at into semantically meaningful areas, each labeled with a specific object class, such as building, sky, ground, vegetation and car
- ▶ A partition scheme is then introduced to separate buildings into independent blocks using the major line structures of the scene
- ▶ For each block, proposes an inverse patch-based orthographic composition and structure analysis method for facade modeling that efficiently regularizes the noisy and missing reconstructed 3D data
- ▶ System has the distinct advantage of producing visually compelling results by imposing strong priors of building regularity