

## Training

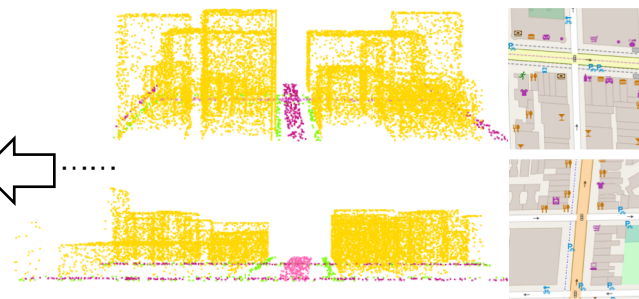
### Ground-view Images



### Contrastive Learning

Multi-modal Map Fusion  
Embedded Space Learning

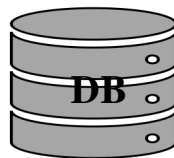
### Multi-modal Maps



## Inference

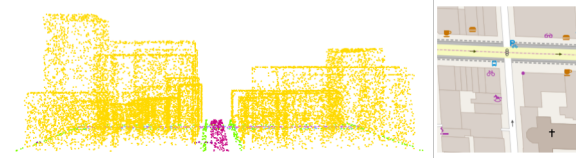


Connectivity  
Information



Geo-referenced  
Map Database

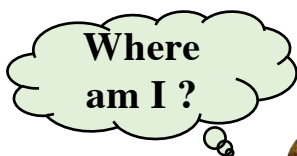
### Maps of New Exploring Area



Geolocation tasks:  
Single-image based  
or Route based



observe



query

localize



I am at  
40.7379,  
73.9961!