Lifelong place recognition is an essential and challenging task in computer vision, with vast applications in robust localization and efficient large-scale 3D reconstruction.

Overview

Progress is currently hindered by a lack of large, diverse, publicly available datasets.

We contribute with Mapillary Street-Level Sequences (MSLS), a large dataset for urban and suburban place recognition from image sequences.

Large Geographical Coverage

Research

Sequentially Structured

- Long Temporal Coverage
- High-Level Image Attributes







Mapillary Street-Level Sequences: A Dataset for Lifelong Place Recognition

Mapillary Street-Level Sequences Dataset

- More than 1.6 million images
- 30 major cities, ranging from Tokyo to San Francisco, across six continents
- All images tagged with sequence information, geolocated with GPS and compass angles
- Various capture times spanning all seasons over a 9-year period
- Different weather, cameras, daylight conditions, and structural settings





















Improved Generalization





Evaluate SOTA's Geographical Bias



-or more information, download and tutorials,