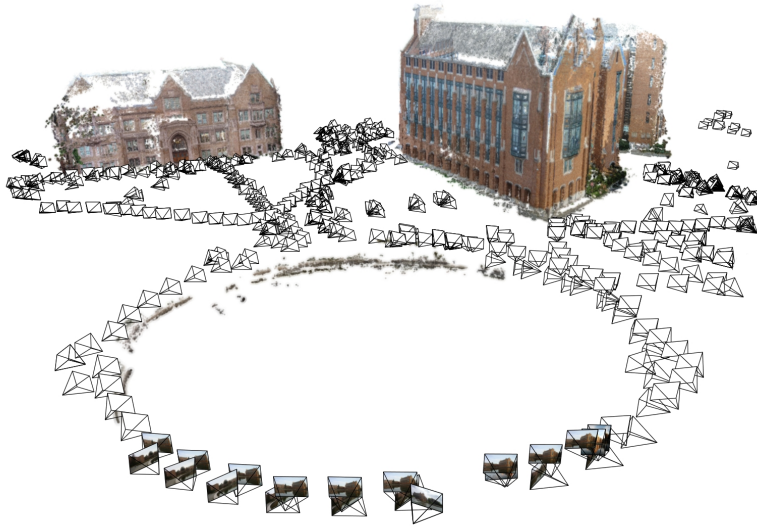# PhotoCity: A Game for Reconstructing the World in 3D

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Overview

PhotoCity is a game for reconstructing the world in 3D out of photos. Players take pictures of building exteriors from all different angles, which are then used to automatically generate 3D models and calculate virtual ownership of the buildings.

Contact Info

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What can players accomplish away from their computers?

PhotoCity is a game with a purpose, played out in the real world, in which players help build a 3D replica of the world simply by taking lots of photos.

We have the technology to build accurate models of almost anything from just photos (buildings, school campuses, entire cities)… we just don't have enough photos!

Humans in the loop

The role of the human player in PhotoCity is to decide where the 3D model needs the most work (at edges and holes) and to capture the photos that will expand the models and fill in holes.
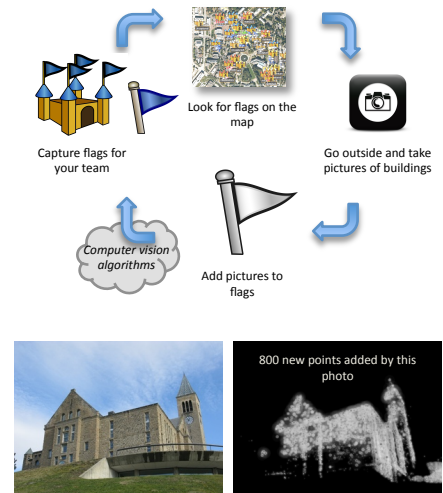
Learning == fun

Players learn both in-game strategies, such as capturing and defending territory, as well as strategies related to the underlying computer vision, including maximizing feature points and incrementally growing 3D models. The players who have become PhotoCity experts have submitted thousands of photos apiece.

Acquiring huge datasets

Since December 2009, 120 PhotoCity players have submitted over 140,000 photos. We have roughly 50,000 photos each of UW and Cornell campuses, collected during a competition between the schools. Unlike photosets downloaded from Flickr, the majority of these photos contribute useful information to the 3D reconstructions.

Example Cycle of Play

Capture flags for your team

Look for flags on the map

Go outside and take pictures of buildings

Computer vision algorithms

Add pictures to flags

800 new points added by this photo

Try it for yourself!

Visit the website to find active zones near you where you can add photos to existing models to help them grow!

Take photos and start your own models anywhere!

http://www.photocitygame.com

Watch videos of 3D models:

http://youtube.com/PhotoCityGame