Location Reviews Using Cloud-based Landmark Recognition
Leo Alterman, Holly Ho, Aaron Jaffey
Department of Electrical Engineering, Stanford University

Motivation
Allow hungry users walking down the street to whip out their phone, snap a quick picture of different restaurants, and immediately receive restaurant reviews.

Automatically build and maintain a set of training images for each restaurant that does not have to be manually curated by the application's developers.

Results and Future Work

Improve weighting algorithms used within location image sets (geometric correlation, weight newer images more highly, night/day metrics, etc.)

Include more sources of information in user application (Google reviews, Zagat restaurant ratings, etc.)

System architecture and recognition pipeline

Android App

Descriptor weighting

Give priority to features of images that appear often in other images of the same place. Blue keypoints are "uncommon", red keypoints are "common"