

BANQUET KEYNOTE TALK
Tuesday, November 30, 2010
8:00PM – 9:00 PM / East Ballroom 6,7,8

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Reconstructing the World from Photos on the Internet

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Abstract

There's a big difference between looking at a photograph of a place and being there. But what if you had access to a database of every possible image of that place and could conjure up any view at will? With billions of photographs currently available online, the Internet is beginning to resemble such a database, capturing our world's sites from a huge number of vantage points and viewing conditions. For example, a Google image search for "notre dame" or "grand canyon" each return millions of photos, showing the sites from myriad viewpoints, different times of day and night, and changes in season, weather and decade. This talk explores ways of transforming this massive, unorganized photo collection into 3D scene reconstructions and visualizations of the world's sites, cities, and landscapes. After a brief recap of our work on Photo Tourism and Photosynth, I will focus on current efforts and newest results in the domains of city-scale 3D reconstruction and new visual interfaces for navigating photo collections.



Speaker Bio-Sketch: Steve Seitz is a Professor in the Department of Computer Science and Engineering at the University of Washington. He also directs an imaging group at Google's Seattle office. He received his B.A. in computer science and mathematics at the University of California, Berkeley in 1991 and his Ph.D. in computer sciences at the University of Wisconsin, Madison in 1997. Following his doctoral work, he spent one year visiting the Vision Technology Group at Microsoft Research and the subsequent two years as an Assistant Professor in the Robotics Institute at Carnegie Mellon University. He joined the faculty at the University of Washington in July 2000. He was twice awarded the David Marr Prize for the best paper at the International Conference of Computer Vision, and he has received an NSF Career Award, and ONR Young Investigator Award, and an Alfred P. Sloan Fellowship. His work on Photo Tourism (joint with Noah Snavely and Rick Szeliski) formed the basis of Microsoft's Photosynth technology. Professor Seitz is interested in problems in computer vision and computer graphics. His current

research focuses on 3D modeling and visualization from large photo collections.