OPUS
College of Engineering

MARQUETTE UNIVERSITY

Department of Electrical and Computer Engineering
Colloquium
2:00 -3:00 pm
Tuesday, January 15, 2019

Title: See, Hear, Move: Towards Embodied Visual Perception

Dr. Kristen Grauman

Professor in the Department of Computer Science at the University of Texas at Austin
&
Research Scientist at Facebook AI Research

** NEW LOCATION **
Engineering Hall Room 236
1637 W. Wisconsin Ave.
Milwaukee, WI 53233

ABSTRACT:
Computer vision has seen major success in learning to recognize objects from massive "disembodied" Web photo collections labeled by human annotators. Yet cognitive science tells us that perception develops in the context of acting and moving in the world---and without intensive supervision. Meanwhile, many realistic vision tasks require not only categorizing a well-composed human-taken photo, but also intelligently deciding where to look in the first place and how to interact with the environment. In the context of these challenges, we are exploring ways to learn visual representations from unlabeled video accompanied by multi-modal sensory data like egomotion and sound. Moving from passively captured video to agents that control their own first-person cameras, we investigate how agents can learn to move intelligently to acquire visual observations. Finally. we explore how to learn object affordances from complex human behavior observed in video, an important step towards learning to not only recognize objects, but also interact with them.

BIO:
Kristen Grauman is a Professor in the Department of Computer Science at the University of Texas at Austin and a Research Scientist at Facebook AI Research. Her research in computer vision and machine learning focuses on visual recognition and search. Before joining UT Austin in 2007, she received her Ph.D. at MIT in computer science. She is a Sloan Fellow, a recipient of NSF CAREER and ONR Young Investigator awards, the 2013 PAMI Young Researcher Award, the 2013 IJCAI Computers and Thought Award, a Presidential Early Career Award for Scientists and Engineers (PECASE), a 2017 Helmholtz Prize computer vision "test of time" award, and the 2018 J.K. Aggarwal Prize from the International Association for Pattern Recognition. She and her collaborators were recognized with best paper awards at CVPR 2008, ICCV 2011, and ACCV 2016. She previously served as Program Chair of the Conference on Computer Vision and Pattern Recognition (CVPR) in 2015 and currently serves as Associate Editor-in-Chief for the journal Pattern Analysis and Machine Intelligence (PAMI) and as a Program Chair of Neural Information Processing Systems (NeurIPS) 2018.

http://www.cs.utexas.edu/~grauman/

Reception and Refreshments
3:00- 3:30 pm

** NEW LOCATION & TIME **
Engineering Hall, Room 252
1637 W. Wisconsin Ave.
Milwaukee, WI 53233

For more information, call the EECE department office at (414) 288-6820

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