Yu-Wei Chao

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Computer Science and Engineering
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RESEARCH INTERESTS

Computer vision, machine learning, object/activity recognition, 3D scene understanding

EDUCATION

University of Michigan, Ann Arbor, MI — Sept 2013 to present
Ph.D. in Computer Science and Engineering
Advisor: Prof. Silvio Savarese

University of Michigan, Ann Arbor, MI — Sept 2011 to Apr 2013
M.S. in Electrical Engineering: Systems — GPA: 3.96/4.00
Advisor: Prof. Silvio Savarese

National Chiao Tung University, Hsinchu, Taiwan — Sept 2005 to June 2009
B.S. in Electronics Engineering — GPA: 85.45/100.00
Minor in Applied Mathematics

Carnegie Mellon University, Pittsburgh, PA — Fall 2008
International Exchange Program — GPA: 3.80/4.00

RSEARCH EXPERIENCE

Stanford University, Stanford, CA — July 2013 to present
Visiting Student Researcher
- Human group activity recognition
- Advisor: Prof. Silvio Savarese

University of Michigan, Ann Arbor, MI — May 2013 to present
Graduate Student Research Assistant (GSRA)
- 3D layout estimation of indoor scenes
- Advisor: Prof. Silvio Savarese

Academia Sinica, Taipei, Taiwan — Aug 2010 to July 2011
Research Assistant
- Image classification via sparse representation
- Supervised dictionary learning for sparse representation
- Mentor: Dr. Yu-Chiang Frank Wang

PUBLICATIONS

Y.-W. Chao, W. Choi, C. Pantofaru, and S. Savarese. Layout Estimation of Highly Cluttered Indoor Scenes using Geometric and Semantic Cues. In *Proceedings of the International Conference on Image Analysis and Processing* (ICIAP), 2013. (**oral presentation**, 7.9% acceptance rate)

W. Choi, **Y.-W. Chao**, C. Pantofaru, and S. Savarese. Understanding Indoor Scenes using 3D Geometric Phrases. In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition* (CVPR), 2013. (**oral presentation**, 3.2% acceptance rate)

C.-P. Wei, **Y.-W. Chao**, Y.-R. Yeh, and Y.-C. F. Wang. Locality-Sensitive Dictionary Learning for Sparse Representation Based Classification. *Pattern Recognition*, Vol. 46, No. 5, pp.1277–1287, May 2013.

S. Y. Bao, M. Bagra, **Y.-W. Chao**, and S. Savarese. Semantic Structure From Motion with Points, Regions, and Objects. In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition* (CVPR), 2012.

Y.-W. Chao, Y.-R. Yeh, Y.-W. Chen, Y.-J. Lee, and Y.-C. F. Wang. Locality-constrained Group Sparse Representation for Robust Face Recognition. In *Proceedings of the IEEE International Conference on Image Processing* (ICIP), 2011.

Teaching Experience	**Computer Vision (EECS 442)**, University of Michigan Fall 2012

Computer Vision (EECS 442), University of Michigan   Fall 2012

Teaching
Experience

Graduate Student Instructor (GSI)
- Served as the only GSI for a class with 80+ student
- Taught weekly section on topics from class; demonstrated off-the-shelf softwares
- Managed an online forum for discussions; held office hours to provide individualized help

Awards and
Honors

Government Scholarships for Study Abroad (GSSA), Ministry of Education, Taiwan   May 2011

Study Abroad Scholarship for Outstanding College Students, Ministry of Education, Taiwan   Fall 2008

Academic Achievement Award, National Chiao Tung University   Spring 2008

Professional
Service

Reviewer
- International IEEE Workshop on 3D Representation and Recognition (3dRR-13), 2013
- International Conference on Image Analysis and Processing (ICIAP), 2013

Student Volunteer
- IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2013
- IEEE Statistical Signal Processing Workshop (SSP'12), 2012

Other
Achievements

Technology Transfer - Industrial Technology Research Institutes, Hsinchu, Taiwan,   Dec 2011
- Sparse Representation Based Face Recognition Technology

Skills and
Languages

Programming Languages: C/C++, MATLAB, UNIX shell scripting, and others

Operating Systems: Linux, Windows and Mac OS X

Languages: English, Chinese (Mandarin), and Taiwanese