## Yu-Wei Chao

CONTACT Information University of Michigan

Computer Science and Engineering

2260 Hayward Street

Ann Arbor, MI 48109-2121

RESEARCH INTERESTS

**EDUCATION** 

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

(734) 730-7701

ywchao@umich.edu

Sept 2013 to present

Sept 2011 to Apr 2013

GPA: 3.96/4.00

GPA: 85.45/100.00

GPA: 3.80/4.00

July 2013 to present

May 2013 to present

Aug 2010 to July 2011

http://www.umich.edu/~ywchao/

University of Michigan, Ann Arbor, MI

Ph.D. in Computer Science and Engineering

Advisor: Prof. Silvio Savarese

University of Michigan, Ann Arbor, MI

M.S. in Electrical Engineering: Systems

Advisor: Prof. Silvio Savarese

National Chiao Tung University, Hsinchu, Taiwan Sept 2005 to June 2009

B.S. in Electronics Engineering Minor in Applied Mathematics

Carnegie Mellon University, Pittsburgh, PA Fall 2008

International Exchange Program

RSEARCH EXPERIENCE Stanford University, Stanford, CA

Visiting Student Researcher

• Human group activity recognition

• Advisor: Prof. Silvio Savarese

University of Michigan, Ann Arbor, MI

Graduate Student Research Assistant (GSRA)

• 3D layout estimation of indoor scenes

• Advisor: Prof. Silvio Savarese

Academia Sinica, Taipei, Taiwan

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

Dec 2011

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,

• 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