Yu-Wei Chao

(734) 730-7701 Contact University of Michigan Information Computer Science and Engineering ywchao@umich.edu 2260 Hayward Street http://www.umich.edu/~ywchao/ Ann Arbor, MI 48109-2121 Computer vision, machine learning, object/human action recognition, 3D scene understanding Research Interests **EDUCATION** University of Michigan, Ann Arbor, MI Sept 2013 to present Ph.D. in Computer Science and Engineering Advisor: Prof. Jia Deng University of Michigan, Ann Arbor, MI Sept 2011 to Apr 2013 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 Fall 2008 Carnegie Mellon University, Pittsburgh, PA International Exchange Program Work University of Michigan, Ann Arbor, MI Sep 2014 to present EXPERIENCE Graduate Student Research Assistant (GSRA) • Visual recognition of human-object interactions • Advisors: Prof. Jia Deng **DAQRI**, Mountain View, CA May 2014 to Aug 2014 Research Intern • 3D scene understanding for augmented reality • Mentors: Chris Broaddus, Wenyi Zhao, Byungsoo Kim Stanford University, Stanford, CA July 2013 to Dec 2013 Visiting Student Researcher • Advisor: Prof. Silvio Savarese University of Michigan, Ann Arbor, MI May 2013 to April 2014 Graduate Student Research Assistant (GSRA) • 3D layout estimation of indoor scenes • Human group activity recognition • 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

Conference Publications

HICO: A Benchmark for Recognizing Human-Object Interactions in Images

International Conference on Computer Vision (ICCV) 2015

Yu-Wei Chao, Zhan Wang, Yugeng He, Jiaxuan Wang, Jia Deng

Mining Semantic Affordances of Visual Object Categories

Computer Vision and Pattern Recognition (CVPR) 2015 Yu-Wei Chao, Zhan Wang, Rada Mihalcea, Jia Deng

Discovering Groups of People in Images

European Conference on Computer Vision (ECCV) 2014 Wongun Choi, Yu-Wei Chao, Caroline Pantofaru, Silvio Savarese Layout Estimation of Highly Cluttered Indoor Scenes using Geometric and Semantic Cues International Conference on Image Analysis and Processing (ICIAP) 2013 (Oral, 7.9% acceptance rate)

Yu-Wei Chao, Wongun Choi, Caroline Pantofaru, Silvio Savarese

Understanding Indoor Scenes using 3D Geometric Phrases

Computer Vision and Pattern Recognition (CVPR) 2013 (Oral, 3.2% acceptance rate)

Wongun Choi, Yu-Wei Chao, Caroline Pantofaru, Silvio Savarese

Semantic Structure From Motion with Points, Regions, and Objects

Computer Vision and Pattern Recognitio (CVPR) 2012

Sid Ying-Ze Bao, Mohit Bagra, Yu-Wei Chao, Silvio Savarese.

Locality-constrained Group Sparse Representation for Robust Face Recognition

International Conference on Image Processing (ICIP) 2011

Yu-Wei Chao, Yi-Ren Yeh, Yu-Wen Chen, Yuh-Jye Lee, Yu-Chiang Frank Wang

JOURNAL PUBLICATIONS

Indoor Scene Understanding with Geometric and Semantic Contexts

International Journal of Computer Vision (IJCV) 2015

Wongun Choi, Yu-Wei Chao, Caroline Pantofaru, Silvio Savarese

Locality-Sensitive Dictionary Learning for Sparse Representation Based Classification

Pattern Recognition 2013

Chia-Po Wei, Yu-Wei Chao, Yi-Ren Yeh, Yu-Chiang Frank Wang

TEACHING EXPERIENCE Computer Vision (EECS 542), University of Michigan

Fall 2014

Graduate Student Instructor (GSI)

Computer Vision (EECS 442), University of Michigan

Fall 2012

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 Rackham Conference Travel Grant, University of Michigan

March 2015

May 2011

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

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

Academic Achievement Award, National Chiao Tung University

Spring 2008

PROFESSIONAL

Reviewer

SERVICE • International Conference on Pattern Recognition (ICPR), 2014

- 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

Contributor to open source projects

ACHIEVEMENTS

• Caffe: a popular tool for Deep Learning

Technology Transfer - Industrial Technology Research Institutes, Hsinchu, Taiwan

Dec 2011

• Sparse Representation Based Face Recognition Technology

SKILLS AND LANGUAGES

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

Libraries: Caffe, OpenCV

Operating Systems: Linux, Windows and Mac OS X Languages: English, Chinese (Mandarin), and Taiwanese