YU-WEI CHAO

4438 EECS Building, 1301 Beal Avenue, Ann Arbor, MI 48105 / (734) 730-7701
ywchao@umich.edu / http://www-personal.umich.edu/~ywchao/

AREA OF INTERESTS

Computer Vision, Machine Learning, Signal Processing

EDUCATION

University of Michigan, Ann Arbor, MI　　　　　　　　　　　　　September 2011 - Present
　M.S. in Electrical Engineering: Systems　　　　　　　　　　　　　　　　GPA: 7.59/9.00

National Chiao Tung University, Hsinchu, Taiwan　　　　　September 2005 - June 2009
　B.S. in Electronics Engineering, Minor in Applied Mathematics　　　　　GPA: 3.85/4.00

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

WORK EXPERIENCE

Research Assistant, Academia Sinica, Taipei, Taiwan　　　　　August 2010 - July 2011
- Assist academic research in computer vision, pattern recognition and machine learning
- Instruct undergraduate RAs in machine learning/pattern recognition topics
- Served as reviewer of ACCV 2010 and ICME 2011
- **Mentor**: Dr. Yu-Chiang Frank Wang

RESEARCH PROJECTS

Semantic Structure from Motion with Points, Regions, and Objects　September 2011 - November 2011
- Applied and analyzed different region classifiers for Semantic Structure from Motion
- **Advisor**: Prof. Silvio Savarese

Supervised Dictionary Learning for Sparse Representation Classification　February 2011 - July 2011
- Proposed a supervised dictionary learning algorithm for face recognition and handwritten digit recognition
- **Advisor**: Dr. Yu-Chiang Frank Wang

Locality and Group-Sensitive Sparse Representation for Visual Classification　August 2010 - January 2011
- Proposed a novel sparse representation algorithm for supervised image classification
- **Advisor**: Dr. Yu-Chiang Frank Wang

Interactive Cosegmentation on Groups of Related Images　　　　　　　　　Fall 2008
- Created a dataset and ground truth labels for image segmentation (*38* groups with *643* images)
- http://chenlab.ece.cornell.edu/projects/touch-coseg/
- **Advisor**: Prof. Tsuhan Chen

TEACHING EXPERIENCE

Teaching Assistant of online courses at Coursera
- Computer Vision: From 3D Reconstruction to Visual Recognition, January 2013
  https://www.coursera.org/#course/computervision

Graduate Student Instructor (GSI) at University of Michigan
- Computer Vision (EECS 442), Fall 2012
  http://www.eecs.umich.edu/vision/teaching/EECS442_2012/eecs442.html

PUBLICATIONS

- C.-P. Wei, **Y.-W. Chao**, Y.-R. Yeh, and Y.-C. F. Wang, "Locality-Sensitive Dictionary Learning for Sparse Representation Based Classification," To appear in *Pattern Recognition.*
- S. Y. Bao, M. Bagra, **Y.-W. Chao**, S. Savarese, "Semantic Structure From Motion with Points, Regions, and Objects," *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," *Proceedings of the IEEE International Conference on Image Processing (ICIP)*, 2011.

Yu-Wei Chao

Honors & Awards

- **Government Scholarships for Study Abroad (GSSA)**, Ministry of Education, Taiwan   May 2011
- **Achievement Award for Mandatory Service Officers**, Ministry of National Defense, Taiwan   June 2010
- **Study Abroad Scholarship for Outstanding College Students**, Ministry of Education, Taiwan   Fall 2008
- **Academic Achievement Award (Class Rank: 2/51)**, National Chiao Tung University   Spring 2008

Other Achievements

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

Skills & Languages

- Programming Languages: C/C++, MATLAB, Java, Python
- Operating Systems: Windows, Linux
- Languages: English, Chinese (Mandarin), Taiwanese