

YU-WEI CHAO

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AREA OF INTERESTS

Computer Vision, Pattern Recognition, Machine Learning, Signal Processing

EDUCATION

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| University of Michigan , Ann Arbor, MI
M.S. in Electrical Engineering: Systems | September 2011 - Present
GPA: 7.59/9.00 |
| National Chiao Tung University , Hsinchu, Taiwan
B.S. in Electronics Engineering, Minor in Applied Mathematics | September 2005 - June 2009
GPA: 3.85/4.00 |
| Carnegie Mellon University , Pittsburgh, PA
International Exchange Program | Fall 2008
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, September 2012
<https://www.coursera.org/#course/computervision>
- Graduate Student Instructor (GSI)** at University of Michigan
- Computer Vision (EECS 442), Fall 2012

PUBLICATIONS

- 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*. (under revision)
- 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, Python, Verilog
- Circuit Simulators: HSPICE, PSPICE
- Operating Systems: Windows, Linux
- Languages: English, Chinese (Mandarin), Taiwanese