

Chao-Yeh Chen

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EDUCATION

- University of Texas at Austin**, Austin, TX May. 2016
Ph.D. in Computer Science
Thesis: Learning Human Activities and Poses with Interconnected Data Sources
Supervised by Prof. Kristen Grauman
GPA: 3.87/4.00
- University of Texas at Austin**, Austin, TX Jan. 2011
M.S.E. in Electrical and Computer Engineering
Thesis: Clues from the Beaten Path: Location Estimation with Bursty Sequences of Tourist Photos
Supervised by Prof. Kristen Grauman
- National Chiao-Tung University**, Hsinchu, Taiwan Jun. 2005
B.S. in Electronics Engineering (GPA 3.92/4.00)

RESEARCH INTERESTS

Computer vision and machine learning, and their applications to object/activity recognition: human activity and pose recognition in image and video, efficient event detection, human object interaction, semi-supervised visual attribute learning, visual content based location estimation, large scale object recognition, crowdsourcing dataset collection, deep learning

EXPERIENCE

- Software Engineer** 2016–Now
Mobile Vision in Google Research
- Developed deep learning model for image recognition related projects
- Graduate Research Assistant** 2010–2015
Department of Computer Sciences, University of Texas at Austin
- Developed a transfer learning algorithm to combine information from static images and videos to improve human activity recognition system and reduce data collection cost
 - Developed an approach to model category independent human object interaction with mixture density network and convolutional neural network for interaction localization and automatic image caption generation
 - Developed an efficient branch and bound algorithm for fast and accurate human activity detection in video sequences
 - Developed an approach to infer category sensitive visual attribute for large scale data with recommendation method
 - Developed an approach to infer human pose in unseen views with matrix completion for multi-view action recognition system
 - Developed an approach for human traveling image sequence based location estimation with sequential inference model

Research Intern

July 2014–Oct. 2014

Media Analytics Group, NEC Lab America

- Worked with Dr. Manmohan Chandraker and Dr. Wongun Choi
- Developed a scalable scene understanding system in autonomous driving system (patented)

Full-Time Teaching Assistant

2007–2008

Department of Electronics Engineering, National Chiao-Tung University, Taiwan

- Supervised students' electrical experiments and projects
- Coordinated Electronics Lab
- Taught undergraduate students one-on-one in office hours

Research Assistant

2004-2005

Electronics & Optoelectronics Research Lab, Industrial Technology Research Institute, Taiwan

- Surveyed patent and presented useful content to engineers
- Established a patent map for digital still camera

PUBLICATIONS

1. C.-Y. Chen and K. Grauman. Subjects and Their Objects: Localizing Interactees for a Person-Centric View of Importance. In *International Journal of Computer Vision (IJCV)*, October 2016.
 2. C.-Y. Chen and K. Grauman. Efficient Activity Detection in Untrimmed Video with Max-Subgraph Search. In, *IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI)*, May 2016.
 3. C.-Y. Chen, W. Choi, and M. Chandraker. Atomic Scenes for Scalable Traffic Scene Recognition in Monocular Videos. In *IEEE Winter Conference on Applications of Computer Vision (WACV)*, Lake Placid, NY, March 2016.
 4. C.-Y. Chen and K. Grauman. Predicting the Location of “Interactees” in Novel Human-Object Interactions. In *Proceedings of the Asian Conference on Computer Vision (ACCV)*, Singapore, November 2014. (27% acceptance rate)
 5. C.-Y. Chen and K. Grauman. Inferring Unseen Views of People. In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, Columbus, OH, June 2014. (29.9% acceptance rate)
 6. C.-Y. Chen and K. Grauman. Inferring Analogous Attributes. In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, Columbus, OH, June 2014. (29.9% acceptance rate)
 7. C.-Y. Chen and K. Grauman. Watching Unlabeled Video Helps Learn New Human Actions from Very Few Labeled Snapshots. In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, Portland, OR, June 2013. (**oral presentation**, 3.6% acceptance rate)
 8. C.-Y. Chen and K. Grauman. Efficient Activity Detection with Max-Subgraph Search. In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, Providence, RI, June 2012. (24.1% acceptance rate)
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9. C.-Y. Chen and K. Grauman. Clues from the Beaten Path: Location Estimation with Bursty Sequences of Tourist Photos. In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, Colorado Springs, CO, June 2011. (26.4% acceptance rate)
10. C.-Y. Chen, C.-Y. Tseng, C.-H. Hung, I.-J. Yin, S.-J. Wang. Combinational AE-AF system with fuzzy climbing search servo. In *IS&T/SPIE 18th Annual Symposium Electronic Imaging*, San Jose, California, January 2006.

INVITED TALKS

- Research Center for Information Technology Innovation at Academia Sinica, Taipei, Taiwan, January 2015
- Amazon Research, Seattle, WA, September 2015
- Oculus Research, Pittsburgh, PA, October 2015
- Snapchat Research, Venice, CA, October 2015

PROFESSIONAL SERVICE

- Program Committee/Reviewer, ICCV 2013, ECCV 2014, CVPR 2015, ICCV 2015, ICML 2015, NIPS 2015, CVPR 2016, IJCAI 2016.

ACADEMIC HONORS

- Doctoral Consortium Travel Grant, CVPR 2015 Conference. (Was accepted to participate in a mentoring program for senior PhD students, and received a 900 stipend.)
- Recipient, Presidents Award of NCTU, 2005, 2004, and 2002 (a biannual prize for the top 5% students of each class)
- Recipient, College Student Research Creativity Award from National Science Council (NSC) of Taiwan, 2004

SKILLS

- Programming: C/C++, Python, MATLAB, Java, L^AT_EX, HTML, JavaScript
 - Tools: Tensorflow/Caffe (deep learning), Amazon Mechanical Turk (crowdsourcing), Condor (high throughput computing cluster), Git
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