

# WEI YANG

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@bearpaw

## EDUCATION

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- 2014 - CURRENT **The Chinese University of Hong Kong**, Hong Kong SAR, China  
Department of Electronic Engineering  
Ph.D. in Electronic Engineering (Expected August 2018)  
*Supervisor: Professor Xiaogang Wang*
- 2011 - 2014 **Sun Yat-sen University**, Guangzhou, China  
M.S. in Computer Software and Engineering
- 2007 - 2011 **Sun Yat-sen University**, Guangzhou, China  
B.E. in Software Engineering

## RESEARCH INTERESTS

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**Computer Vision** Human pose estimation, scene understanding, image classification  
**Machine Learning** Deep learning

## EXPERIENCE

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- 10/2017 - PRESENT VISITING SCHOLAR  
Robotics Institute, Carnegie Mellon University, Pittsburgh, PA, United States  
*I am working with Professor Abhinav Gupta on a robotics vision project.*
- 07/2010 - 09/2010 SOFTWARE ENGINEERING INTERN  
Tencent, Inc. Shenzhen, China  
*I developed a Content Management System for internal use based on PHP/HTML/CSS/JJS.*

## PUBLICATIONS

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### Conference Papers

- **LEARNING FEATURE PYRAMIDS FOR HUMAN POSE ESTIMATION**  
Wei Yang, Shuang Li, Wanli Ouyang, Hongsheng Li and Xiaogang Wang  
IEEE International Conference on Computer Vision (ICCV), 2017 (Acceptance Rate 621 / 2143 = 28.9%)
- **IDENTITY-AWARE TEXTUAL-VISUAL MATCHING WITH LATENT CO-ATTENTION**  
Shuang Li, Tong Xiao, Hongsheng Li, Wei Yang, Xiaogang Wang  
IEEE International Conference on Computer Vision (ICCV), 2017 (Acceptance Rate 621 / 2143 = 28.9%)
- **MULTI-CONTEXT ATTENTION FOR HUMAN POSE ESTIMATION**  
Xiao Chu\*, Wei Yang\*, Wanli Ouyang, Cheng Ma, Alan Yuille and Xiaogang Wang  
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2017 (\* indicates equal contribution, Acceptance Rate 29.6%)
- **END-TO-END LEARNING OF DEFORMABLE MIXTURE OF PARTS AND DEEP CONVOLUTIONAL NEURAL NETWORKS FOR HUMAN POSE ESTIMATION**  
Wei Yang, Wanli Ouyang, Hongsheng Li and Xiaogang Wang  
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2016 (Oral, Acceptance Rate 83/ 2145 = 3.9%)
- **MULTI-TASK RECURRENT NEURAL NETWORK FOR IMMEDIACY PREDICTION**  
Xiao Chu, Wanli Ouyang, Wei Yang and Xiaogang Wang  
in Proceedings of IEEE International Conference on Computer Vision (ICCV), 2015 (Oral, Acceptance Rate 56/1698 = 3.3%)
- **CLOTHING CO-PARSING BY JOINT IMAGE SEGMENTATION AND LABELING**  
Wei Yang, Ping Luo and Liang Lin  
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2014 (Acceptance Rate 540/1807 = 29.88%)

- **DATA-DRIVEN SCENE UNDERSTANDING BY ADAPTIVE EXEMPLAR RETRIEVAL**  
Xionghao Liu, **Wei Yang**, Ya Li, Liang Lin, and Jian-Huang Lai  
in Proceedings of IEEE International Conference on Multimedia and Expo (ICME), 2014 (Acceptance Rate 212/716 = 29.61%)
- **LEARNING CONTOUR-FRAGMENT-BASED SHAPE MODEL WITH AND-OR TREE REPRESENTATION**  
Liang Lin, Xiaolong Wang, **Wei Yang**, and Jian-Huang Lai  
IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2012 (Acceptance Rate 466/1933 = 24.1%)
- **INTERACTIVE CT IMAGE SEGMENTATION WITH ONLINE DISCRIMINATIVE LEARNING**  
**Wei Yang**, Xiaolong Wang, Liang Lin, Chengying Gao  
in Proceedings of IEEE International Conference on Image Processing (ICIP), 2011 (Acceptance Rate NA/2245 = 40.6%)

## Journal Papers

- **CLOTHES CO-PARSING VIA JOINT IMAGE SEGMENTATION AND LABELING WITH APPLICATION TO CLOTHING RETRIEVAL**  
Xiaodan Liang, Liang Lin, **Wei Yang**, Ping Luo, Junshi Huang, and Shuicheng Yan  
IEEE Transactions on Multimedia (T-MM), 2016
- **INFERENCE WITH COLLABORATIVE MODEL FOR INTERACTIVE TUMOR SEGMENTATION IN MEDICAL IMAGE SEQUENCES**  
Liang Lin, **Wei Yang**, Chenglong Li, Jin Tang, Xiaochun Cao  
IEEE Transactions on Cybernetics (T-Cybernetics), 2015
- **DATA-DRIVEN SCENE UNDERSTANDING WITH ADAPTIVELY RETRIEVED EXEMPLARS**  
Xionghao Liu, **Wei Yang**, Liang Lin, Qing Wang, Zhaoquan Cai, Jian-Huang Lai  
IEEE Multimedia (MM), 2015
- **DISCRIMINATIVELY TRAINED AND-OR GRAPH MODELS FOR OBJECT SHAPE DETECTION**  
Liang Lin, Xiaolong Wang, **Wei Yang**, and JianHuang Lai  
IEEE Transactions on Pattern Analysis and Machine Intelligence (T-PAMI), 2015

## PROFESSIONAL ACTIVITIES

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2017	Reviewer	IEEE International Conference on Computer Vision (ICCV)
2017	Reviewer	IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)
2017	Reviewer	International Joint Conference on Artificial Intelligence (IJCAI)
2017	Reviewer	IEEE Transaction on Cybernetics (TCYB)
2016	Reviewer	Elsevier Journal of Neurocomputing (NEUCOM)
2016	Reviewer	Elsevier Journal of Pattern Recognition (PR)

## HONORS AND AWARDS

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2017	2nd place	PoseTrack Challenge 2017
2012	National Scholarship	Ministry of Education, China
2011	<i>Silver Medal</i>	Amway University IT Project Competition
2010	3rd Prize Scholarship	Sun Yat-sen University
2009	3rd Prize	Computer Programming Competition, Sun Yat-sen University
2008 AND 2009	2rd Prize Scholarship	Sun Yat-sen University

## PROJECTS

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- **POSETRACK CHALLENGE, 2017**  
Our team won **2nd places** in all two valid tasks. Leaderboard: <https://posetrack.net/leaderboard.php>  
My proposed feature pyramid learning approach in ICCV 2017 was used in all the two submitted entries *BUTDS* and *BUTD2*.
- **THE SPACENET™ CHALLENGE ROUND 2, 2017**  
Results: <https://community.topcoder.com/longcontest/stats/?module=ViewOverview&rd=16892>  
I led the team of *platero*. We ranked the 4th place in the challenge.
- **OPEN SOURCE SOFTWARE: PYTORCH POSE, 2017**  
I developed a general framework for 2D single human pose estimation based on PyTorch.  
Support multiple datasets, multiple SOTA models, and multi-GPUs training.  
130+ stars on GitHub: <https://github.com/bearpaw/pytorch-pose>  
Top 1 performance on the MPII dataset. Leaderboard (Yang et al., ICCV'17): <http://human-pose.mpi-inf.mpg.de/#results>

- **OPEN SOURCE SOFTWARE: PYTORCH CLASSIFICATION, 2017**  
I developed a general framework for popular image classification benchmarks based on PyTorch.  
80+ stars on GitHub: <https://github.com/bearpaw/pytorch-classification>
- **CLOTHING PARSING DATASET, 2014**  
I led the team to build a clothing dataset with people wearing various types of clothes.  
The dataset is open source and has 100+ stars on GitHub: <https://github.com/bearpaw/clothing-co-parsing>

## TEACHING

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2017,	spring	Tutor, Introduction to Deep Learning (ELEG 5491), CUHK
2016,	fall	Tutor, Complex Analysis and Differential Equations (ENGG 2420A), CUHK
2016,	spring	Tutor, Probability and Statistics for Engineers (ENGG 2430D), CUHK
2015,	fall	Tutor, Complex Analysis and Differential Equations for Engineers (ENGG 2420A), CUHK
2015,	summer	Tutor, Solidworks 3D Modeling, CUHK
2014,	fall	Tutor, Digital Circuits and Systems (ELEG2201), CUHK

## COMPUTER SKILLS

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PROGRAMMING LANGUAGES	C/C++, Python, MATLAB, Lua, HTML/CSS/JavaScript, Java
DEEP LEARNING FRAMEWORKS	PyTorch, Torch, Caffe.
SOFTWARE & OS	TeX, MS Office, Illustrator, Inkscape, Linux, Windows