Yi Yang

Mobile: (+1) 949-272-6066, (+44) 7384-871096 Google DeepMind Contact

Email: yiya@google.com, yangyi02@gmail.com 6 Pancras Square Webpage: http://yangyi02.github.io Kings Cross, London, N1C 4AG

Interests Deep Learning, Computer Vision, Machine Learning, Reinforcement Learning

EDUCATION University of California Irvine 2008 - 2013

> • Ph.D. in Computer Science GPA: 3.95/4.0

• Advisor: Prof. Deva Ramanan, co-advisor: Prof. Charless Fowlkes

Hong Kong University of Science & Technology 2006 - 2008 GPA: 3.5/4.0

• M.Phil. in Industrial Engineering and Logistic Management • Advisor: Prof. Jeff Hong

Tsinghua University 2002 - 2006 • B.S. in Automation GPA: 3.8/4.0

 \bullet Top 10% with Excellent Graduation Award

EXPERIENCE Google DeepMind, London

11/2018 - Present Research Scientist London, UK

• Multilingual lip sync from audio.

• Self-supervised 3D optical flow.

Baidu Research, Silicon Valley

10/2013 - 10/2018 Research Scientist, Institute of Deep Learning Sunnyvale, CA

• Occlusion aware unsupervised learning of optical flow.

• Dynamic computational time for visual attention.

• Semantic image segmentation with deep convolutional neural networks.

• Object detection with deep convolutional neural networks.

• Image captioning and question answering with multimodal recurrent neural networks.

• Learning from massive noisy labeled data for visual classification.

• Feedback neural networks for object detection and fine-grained recognition.

Google, Mountain View

06/2012 - 09/2012 Software Engineer Intern, Google Shopping Team Mountain View, CA

Mentor: Emilio Antunez, co-mentor: Tianli Yu

• Large scale human pose estimation for visual fashion clothing retrieval.

06/2011 - 09/2011 Microsoft Research, Silicon Valley

Research Intern, Interactive Visual Media Lab Mentor: Simon Baker, co-mentor: Anitha Kannan

• Proxemics recognition for multiple people interactions in personal photo albums.

University of California Irvine

Research Assistant, Computer Vision Lab Irvine, CA

Mountain View, CA

09/2008 - 08/2013

Advisor: Prof. Deva Ramanan, co-advisor: Prof. Charless Fowlkes

- Human detection and parsing under occlusion and truncation.
- Articulated pose estimation with flexible mixtures-of-parts.
- Layered object detection for multi-class image segmentation.

Selected Publications

20. Xiangyun Zhao, Yi Yang, Feng Zhou, Xiao Tan, Yuchen Yuan, Yingze Bao, Ying Wu, "Recognizing Part Attributes with Insufficient Data", in ICCV 2019

19. Yang Wang, Peng Wang, Zhenheng Yang, Chenxu Luo, Yi Yang, Wei Xu, "UnOS: Unified Unsupervised Optical-flow and Stereo-depth Estimation by Watching Videos", in CVPR 2019.

- 18. Yang Wang, Yi Yang, Zhenheng Yang, Liang Zhao, Peng Wang, Wei Xu, "Occlusion Aware Unsupervised Learning of Optical Flow", in *CVPR 2018*.
- 17. Chunshui Cao, Xianming Liu, Yi Yang, et al., "Feedback Convolutional Neural Network for Visual Localization and Segmentation", in *PAMI 2018*.
- 16. James Supancic, Gregory Rogez, Yi Yang, Jamie Shotton, Deva Ramanan, "Depth-based Hand Pose Estimation: Data, Methods, and Challenges", in *IJCV 2018*.
- 15. Liang-Chieh Chen, Yi Yang, Jiang Wang, Wei Xu, and Alan L. Yuille, "Attention to Scale: Scale-aware Semantic Image Segmentation", in CVPR 2016.
- 14. Jiang Wang, Yi Yang, Junhua Mao, Zhiheng Huang, Chang Huang, Wei Xu, "CNN-RNN: A Unified Framework for Multi-label Image Classification", in *CVPR 2016*. (Oral; Acceptance Rate: 3.9%)
- 13. Haonan Yu, Jiang Wang, Zhiheng Huang, Yi Yang, Wei Xu, "Video Paragraph Captioning Using Hierarchical Recurrent Neural Networks", in *CVPR 2016*. (Oral; Acceptance Rate: 3.9%)
- 12. Junhua Mao, Wei Xu, Yi Yang, Jiang Wang, Zhiheng Huang, Alan Yuille, "Learning like a Child: Fast Novel Visual Concept Learning from Sentence Descriptions of Images", in *ICCV 2015*.
- 11. James Supančič, Gregory Rogez, Yi Yang, Jamie Shotton, Deva Ramanan, "Depth-based hand pose estimation: data, methods, and challenges", in *ICCV 2015*.
- 10. Chunshui Cao, Xianming Liu, Yi Yang, et al., "Look and Think Twice: Capturing Top-Down Visual Attention with Feedback Convolutional Neural Networks", in *ICCV 2015*.
- 9. Tong Xiao, Tian Xia, Yi Yang, Chang Huang, Xiaogang Wang, "Learning from Massive Noisy Labeled Data for Image Classification", in CVPR 2015.
- 8. Junhua Mao, Wei Xu, Yi Yang, Jiang Wang, Zhiheng Huang and Alan Yuille, "Deep Captioning with Multimodal Recurrent Neural Networks", in *ICLR 2015*.
- Golnaz Ghiasi, Yi Yang, Charless Fowlkes and Deva Ramanan, "Parsing Occluded People", in CVPR 2014.
- Yi Yang and Deva Ramanan, "Articulated Human Detection with Flexible Mixtures-of-Parts", in PAMI 2013.
- 5. Yi Yang, Simon Baker, Anitha Kannan and Deva Ramanan, "Recognizing Proxemics in Personal Photos", in CVPR 2012.
- 4. Yi Yang, Sam Hallman, Deva Ramanan and Charless Fowlkes, "Layered Object Models for Image Segmentation", in *PAMI 2012*.
- 3. Yi Yang and Deva Ramanan, "Articulated Pose Estimation with Flexible Mixtures-of-Parts", in CVPR 2011. (Oral; Acceptance Rate: 3.5%)
- 2. Jeff Hong, Yi Yang, and Liwei Zhang, "Sequential Convex Approximations to Joint Chance Constrained Programs: a Monte Carlo Approach," in *OR* 2011.
- 1. Yi Yang, Sam Hallman, Deva Ramanan and Charless Fowlkes, "Layered Object Detection for Multi-Class Segmentation", in CVPR 2010. (Oral; Acceptance Rate: 4.5%)

ACT	IVITIES
AND	AWARDS

Baidu Top Performer Awards ($\ll 1\%$)	2016
Conference Review: NIPS, CVPR, ICCV, ECCV, etc.	2012 - Present
Journal Review: PAMI, IJCV, etc.	2012 - 2015
Research Fellowship, UC Irvine	2011 - 2013
ICS Fellowship Award, UC Irvine	2008 - 2011
Research Fellowship, HKUST	2006 - 2008
Excellent Graduation Award, Tsinghua University	2006
Undergraduate Student Fellowship, Tsinghua University	2003 - 2005
3rd Prize of Chinese National Chemistry Olympiad	2001
1st Prize of Chinese National Mathematics Olympiad	2001

Computer Languages: Python, C, C++, Matlab, HTML, Java, Javascript.

SKILLS Tools: Linux Shell, Vim, PyTorch, Caffe, Tensorflow, Torch, OpenCV, Latex, GNU Make.