

Linjun Yang

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Dr. Linjun Yang has over 10 years experiences on researching/developing cutting-edge image retrieval/computer vision/machine learning technologies. He has authored/co-authored more than 60 peer-reviewed papers published in various conference proceedings and journals and 23 filed US/international patents. His papers have gotten over 2000 citations and his h-index is 22 according to Google Scholar 4/2015. He is now leading a team to develop various advanced image understanding technologies/systems on billions of Web image data, including deep learning, semantic embedding, duplicate-detection, visual similarity search, annotation, etc., with application to various Microsoft products.

EDUCATION

Ph.D, Multimedia Information Retrieval

Delft University of Technology, The Netherlands

2013

M.S., Compute Science

Fudan University, Shanghai, China

2006

B.S., Electronics & Information System

East China Normal University, Shanghai, China

2001

AWARDS

The Best Paper Award at ACM International Conference on Multimedia (ACM MM), Beijing, China, 2009.

The Best Student Paper Award at the 18th ACM Conference on Information and Knowledge Management (CIKM), Hong Kong, 2009.

PROFESSIONAL EXPERIENCE

Microsoft Bing

Jul. 2012 - Present

Principal Software Engineer Manager

- lead a team of 10 people to research and develop cutting-edge computer vision and machine learning technologies to improve various products.

- Deep learning for image understanding
research/develop deep neural network models for improving various image understanding tasks including feature learning, image categorization, semantic embedding, etc.
- Visual search experience (a.k.a search by image)
build measurement set/metric, develop models/rankers to improve the user experience of visual search
- Large-scale duplicate/similarity search system
build a system to retrieve similar/duplicate images from billion-scale database for billions of images per day
- Image annotation
build algorithms/system to generate tags for any given image based on deep learning and similarity search

Microsoft Bing

Nov. 2011 - Apr. 2012

Visiting Researcher, Multimedia Search Team

- Designing and implementing back-end image processing library/pipeline.
- Developing billion-scale image duplicate detection system.

- Visual search
We study various methods to improve the precision of image and video search by example.
- Content-based Image Ranking/Reranking
This objective of this project is to improve image search ranking by utilizing visual content analysis.
- Video analysis SDK
to develop a suite of libraries for image and video content analysis based on Windows DirectShow API.

COMPUTING SKILLS

- Experienced in C++, C#.
- Experienced in Machine learning and Information retrieval.

REPRESENTATIVE PUBLICATIONS

(full publicationb list: <https://scholar.google.com/citations?user=cvgKxDQAAAAJ>)

- [10] Linjun Yang, Alan Hanjalic, "Learning to Rerank Web Images," *IEEE Multimedia* 2013.
- [9] Bo Geng*, Linjun Yang, Chao Xu, Xian-Sheng Hua, Shipeng Li, "The Role of Attractiveness in Web Image Search," *ACM Multimedia* 2011.
- [8] Xinmei Tian*, Linjun Yang, Jingdong Wang, Xiuqing Wu, Xian-Sheng Hua, "Bayesian Visual Reranking," *IEEE Transactions on Multimedia*.
- [7] Lifeng Shang, Linjun Yang, Fei Wang, Kwok-Ping Chan, Xian-Sheng Hua, "Real-time large scale near-duplicate web video retrieval," *ACM Multimedia* 2010.
- [6] Linjun Yang, Alan Hanjalic, "Supervised Reranking for Web Image Search," *ACM Multimedia* 2010.
- [5] Bo Geng*, Linjun Yang, Chao Xu, Xian-Sheng Hua, "Ranking Model Adaptation for Domain Specific Search," *ACM Conference on Information and Knowledge Management (CIKM) 2009 (Best Student Paper Award)*.
- [4] Zheng-Jun Zha*, Linjun Yang, Tao Mei, Meng Wang, Zengfu Wang, "Visual Query Suggestion," *ACM Multimedia 2009 (Best Paper Award)*.
- [3] Lei Wu*, Linjun Yang, Nenghai Yu, Xian-Sheng Hua, "Learning to Tag", *WWW '09: Proceeding of the 18th international conference on World Wide Web. 2009*.
- [2] Dong Liu*, Xian-Sheng Hua, Linjun Yang, Meng Wang, Hong-Jiang Zhang, "Tag Ranking", *WWW '09: Proceeding of the 18th international conference on World Wide Web. 2009*.
- [1] Xinmei Tian*, Linjun Yang, Jingdong Wang, Yichen Yang*, Xiuqing Wu, Xian-Sheng Hua, "Bayesian Video Search Reranking," *ACM Multimedia* 2008.

* the interns I mentored at Microsoft Research Asia