

Yilin Wang

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Education

2013.8-2018.1	Department of Computer Science and Engineering. Arizona State University, AZ [GPA 3.89/4.0]	Ph.D.
2011.9-2013.6	Department of Computer Science and Engineering. Arizona State University, AZ [GPA 3.86/4.0]	MS.

Award

2017	ASU Graduate Fellowship
2016,2017	ASU Graduate Travel Award
2015	ICIP, ICWSM,WWW Travel Award

Experience

Adobe Research

Intern Research Scientist at deep learning team 2017.5~2017.8

- **Manager:** Jeff Chien
- **Mentor:** Zhaowen Wang, Xiaohui Shen, Lin Zhe, Xin Lu
- Propose a learning based long exposure photo synthesis method for mobile user.
- Design a novel end to end deep generative model for photo realistic image generation.
- The result significantly outperforms Apple's algorithm and the project is under reviewed as a candidate for Adobe Max 2017

Yahoo Research

2016.5~2016.8

Intern Research Scientist at search and science team

2016.8~2017.5

Academic contributor

- **Manager:** Yi Chang
- **Mentor:** Jiliang Tang and Neil O'Hare
- Develop RNN based system for online video content analysis
- Analysis user behavior on Flickr website for mental health care on social media
- Build a System for Query Auto Completion in Blending Search

2013~Now

Department of Com. Sci. & Eng., Arizona State University

Research Assistant, working on the following computer vision and data mining related projects:

- **Advisor:** Baoxin Li;
- Automatic Understanding of Web Images: developing algorithms, features and system for automatically inferring sentiment on the web images;
- Compressive Sensing and Matrix Completion for Correlated Sources: a new model decomposing the images into physic-inspired components, which has been applied in application including imaging processing, face recognition etc.
- Multiple Instance Learning: scene understanding and medical image analysis;
- Network embedding, recommender system, feature selection
- Teaching Assistant, CSE 591

Research Interest & Skills

- Deep Learning and sparse learning for data mining and computer vision related applications.

- Tensorflow, Theano, Hadoop, Pig, Hive and Spark.

Conference Publication

- [1] Semantic Image Manipulation (submitted to CVPR2018)
- [2] Hierarchical Attention Network for Action Recognition in Videos (preprint)
- [3] When will follow back? Understanding and Predicting Delay in Reciprocal Relations (submitted to WWW2018)
- [4] CrossFire: Cross Media Joint Friend and Item Recommendation (submitted to WSDM2017)
- [5] Query Auto Completion in Blended Search (submitted to WWW2018)
- [6] Suhang Wang, **Yilin Wang**, Jiliang Tang, Charu Aggarwal, Huan Liu. Exploiting Hierarchical Structure for Unsupervised Feature Selection. SIAM International Conference on Data Mining (**SDM**) 2017 Houston
- [7] **Yilin Wang**, Jiliang Tang, Jundong Li, Baoxin Li, Yali Wan, Clayton Mellina, Neil O'Hare, Yi Chang. Understanding and Discovering Deliberate Self-harm in Social Media. ACM International Conference on World Wide Web(**WWW**) 2017. Perth (Research Track)
- [8] Suhang Wang, **Yilin Wang**, Jiliang Tang, Kai Shu, Suhas Ranganath, Huan Liu. What your Images Reveal: Exploiting Visual Features for Point of Interest Recommendation. ACM International Conference on World Wide Web(**WWW**) 2017. Perth (Research Track)
- [9] **Yilin Wang**, Suhang Wang, Jiliang Tang, Guojun Qi, Huan Liu, Baoxin Li. Joint Classification and Tag Recommendation in Social Media. AAAI International Conference on Artificial Intelligence (**AAAI**) 2017 San Fransico
- [10] **Yilin Wang**, Suhang Wang, Jiliang Tang, Huan Liu, Baoxin Li. PPP: Joint Pointwise and Pairwise Image Label Prediction. IEEE International Conference on Computer Vision and Patter Recognition (**CVPR**) 2016. Las Vegas
- [11] **Yilin Wang**, Qiang Zhang, Baoxin Li, Efficient Abnormal Event Detection via Saliency Detector (1st round accepted) . IEEE Winter Conference on Application of Computer Vision(**WACV**) 2016. Lake Placid New York
- [12] **Yilin Wang***, Jun Cao*, Baoxin Li, Real Time Vehicle Back-up Warning System with Single Camera. IEEE International Conference on Image Processing (**ICIP**), 2015, Quebec City, Canda.
- [13] **Yilin Wang**, Suhang Wang, Jiliang Tang, Huan Liu, Baoxin Li. Unsupervised Sentiment Analysis for Social Media Images. AAAI International Joint Conference on Artificial Intelligence. (**IJCAI**) 2015. Buenos Aires. Argentina. (**oral**)
- [14] Suhang Wang, Jiliang Tang, **Yilin Wang**, Huan Liu. Exploring Implicit Hierarchical Structure for Recommender Systems. AAAI International Joint Conference on Artificial Intelligence. (**IJCAI**) 2015. Buenos Aires. Argentina. (**oral**)
- [15] **Yilin Wang** and Baoxin Li, Structure Preserving Image Quality Assessment. IEEE International Conference on Multimedia and Expo (**ICME**), 2015, Torino, Italy. (**oral**)
- [16] **Yilin Wang**, Yuheng Hu, Subbarao Kambhampati and Baoxin Li, Looking and Feeling: Learning to infer Human Sentiment on Web Images. International AAAI Conference on Weblogs and Social Media (**ICWSM**), 2015, Oxford, UK. (**oral, long paper**)
- [17] Parag S. Chandakkar, **Yilin Wang** and Baoxin Li, Improving Vision-based Self-positioning in Intelligent Transportation Systems via Integrated Lane and Vehicle. IEEE Winter Conference on Application of Computer Vision (**WACV**), 2015, Waikoloa Beach, HI. (**oral**)
- [18] Qiang Zhang, Jiayu Zhou, **Yilin Wang**, Jieping Ye, Baoxin Li, Multi-Task Image Co-segmentation. British Machine Vision Conference (**BMVC**), 2014, Nottingham, UK. (**poster**)
- [19] **Yilin Wang**, Qiang Zhang, Baoxin Li. Video Quality Assessment via Spatiotemporal Saliency Weighted SSIM. International Workshop on Video Processing and Quality Metrics. (**VPQM**) 2014 Chandler. AZ (oral)
- [20] **Yilin Wang**, Baoxin Li. Building Video-synthesis Tools for Simulation-based Quality Evaluation in 3D Viewing. International Workshop on Video Processing and Quality Metrics. (**VPQM**) 2012 Scottsdale. AZ (oral)

Professional Activities

- **Student Member:** IEEE Computer Society, SIAM
- **Student Volunteer:** ACM MM 2011
- **Services:** Program Committee of IJCAI 15 IJCAI16, WACV2015, WACV2016, WACV2017, AIRS 2016, ICMR 2017.

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- **Reviewer:** AAAI15, AAAI16, NIPS16, ICDM2015, Neural Computing, Information Science, IEEE Transactions on TKDE, TKDD, TNNLS.

Media Coverage

Arizona State University News: Tactile Photography, “Seeing by Touching”

ABC News: Printed Photos the Blind Can See.

Wired.Com

Link:

https://asunews.asu.edu/20120611_baoxinli_tactilephotos

<http://abcnews.go.com/Technology/printed-photos-blind/story?id=12951372>

<https://www.wired.com/2015/05/instagram-filters/>

Graduate Core Course

Machine Learning, Data Mining, Social Media Mining, Statistical Learning, Shape Analysis, Optimization, Probability and Stochastic Process, Multimedia and Web Databases.

Referees

Available upon request.