

Xiao Yang

CONTACT INFORMATION Phone: +1-814-880-0696
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EDUCATION Penn State University, PA, USA
PhD candidate in Computer Science and Engineering, 2014 - expected 2019

Tsinghua University, Beijing, China
Bachelor of Engineering in Automation, 2010 - 2014

PROFESSIONAL EXPERIENCE Software Engineer Intern May 2018 - August 2018
Google Research

- Advisor: Zheyun Feng and Pengchong Jin
- Improving large-scale fine-grained image classification with label hierarchy.

Research Intern May 2017 - August 2017
Microsoft Research

- Advisor: Madian Khabsa and Ahmed Hassan Awadallah
- Automatic question answering using attention model and generative adversarial network (GAN).

Research Intern May 2016 - August 2016
Adobe Research

- Advisor: Ersin Yumer and Paul Asente
- Document semantic layout segmentation using fully convolutional neural network and sentence embedding.

PROJECT Research Assistant August 2014 - present
Dept. Computer Science and Engineering, Penn State University

- Advisor: Daniel Kifer and Lee Giles
- End-to-end Text detection and recognition in natural images. Deep Convolutional Neural Networks (CNN) are employed for learning visual representations while Recurrent Neural Networks (RNN) are used for decoding and sequential labeling.

Research Assistant August 2012 - April 2013
Institute of Operations Research and Statistics, Tsinghua University

- Advisor: Hai Jiang
- Estimated urban travel time based on large-scale, real-time GPS trajectory data using Probabilistic Graphical Model and Markov Chain Monte Carlo(MCMC).

TECHNIQUE SKILLS Programming:

- Python, C++, Lua, R, Scala
- Pytorch, Tensorflow, Torch7, Caffe

Expertise:

- Computer Vision, Natural Language Processing, Information Retrieval

PUBLICATION

1. **Xiao Yang**, Ahmed Hassan Awadallah, Madian Khabsa, Wei Wang, Miaosen Wang. "Characterizing and Supporting Question Answering in Human-to-Human Communication". *41st International ACM SIGIR Conference on Research and Development in Information Retrieval*. SIGIR'18.
2. Chen Liang, **Xiao Yang**, Neisarg Dave, Drew Wham, Bart Pursel, and C. Lee Giles. "Distractor Generation for Multiple Choice Questions Using Learning to Rank". *Proceedings of the NAACL-HLT Workshop on Innovative Use of NLP for Building Educational Application, 2018*. NAACL-HLT'18 (BEA Workshop).
3. Chen Liang, **Xiao Yang**, Drew Wham, Bart Pursel, Rebecca Passonneau and C. Lee Giles. "Distractor Generation with Generative Adversarial Nets for Automatically Creating Fill-in-the-blank Questions". *Proceedings of the Ninth International Conference on Knowledge Capture, 2017*. . K-CAP'18.
4. **Xiao Yang**, Dafang He, Zihan Zhou, Daniel Kifer and C. Lee Giles. "Improving Offline Handwritten Chinese Character Recognition by Iterative Refinement". *Proceedings of the IEEE International Conference on Document Analysis and Recognition, 2017*. ICDAR'17 (Oral).
5. **Xiao Yang**, Dafang He, Zihan Zhou, Alex Ororbia, Dan Kifer, C. Lee Giles. "Learning to Read Irregular Text with Attention Mechanism". *Proceedings of the Twenty-Sixth International Joint Conference on Artificial Intelligence, 2017*. IJCAI'17.
6. **Xiao Yang**, Ersin Yumer, Paul Asente, Dan Kifer, C. Lee Giles. "Learning to Extract Semantic Structure from Documents Using Multimodal Fully Convolutional Neural Networks". *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*. CVPR'17 (Spotlight).
7. Dafang He, **Xiao Yang**, Chen Liang, Zihan Zhou, Alex Ororbia, Dan Kifer, C. Lee Giles. "Multi-scale FCN with Instance Aware Segmentation for Arbitrary Oriented Word Spotting In The Wild". *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition*. CVPR'17.
8. Dafang He, **Xiao Yang**, Wenyi Huang, Zihan Zhou, Daniel Kifer, C Lee Giles. "Aggregating Local Context for Accurate Scene Text Detection". *Proceedings of the Asian Conference on Computer Vision, 2016*. ACCV'16.
9. Wenyi Huang, Dafang He, **Xiao Yang**, Zihan Zhou, Daniel Kifer, and C. Lee Giles. "Detecting Arbitrary Oriented Text in the Wild with a Visual Attention Model". *Proceedings of the ACM on Multimedia Conference, 2016*. MM'16 (Short).
10. Anbang Xu, **Xiao Yang(co-first)**, Huaming Rao, Shih-wen Huang, Wai-Tat Fu, "Show me the Money! An Analysis of Project Updates during Crowdfunding Campaigns". *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, 2014*. CHI'14.

ACADEMIC SERVICES

PC Member: JCDL 2018

Reviewer: ICCV 2019, CVPR 2019, CVPR 2018, SIGIR 2018

Sub-Reviewer: IJCAI 2016, AAAI 2017, ICDAR 2017