

# Xiao Yang

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**CONTACT INFORMATION** Phone: +1-814-880-0696  
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**EDUCATION** Penn State University, PA, USA  
Ph.D. in Computer Science and Engineering, 2014 - 2019

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

**PROFESSIONAL EXPERIENCE** Software Engineer September 2019 - Present  
Pinterest, Palo Alto, CA

Software Engineer Intern May 2018 - August 2018  
Google Research, Mountain View, CA

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

Research Intern May 2017 - August 2017  
Microsoft Research, Redmond, WA

- 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, San Jose, CA

- 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, Scala

Expertise:

- Computer Vision, Natural Language Processing, Information Retrieval

## PUBLICATION

1. **Xiao Yang**, Madian Khabsa, Miaosen Wang, Wei Wang, Ahmed Hassan Awadallah, Daniel Kifer, C. Lee Giles. "Adversarial Training for Community Question Answer Selection Based on Multi-scale Matching". *Proceedings of the Thirty-Third AAAI Conference on Artificial Intelligence, 2019*. AAAI'19.
2. **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.
3. 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).
4. 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.
5. **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).
6. **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.
7. **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).
8. 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.
9. 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.
10. 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).
11. 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

Program Committee: JCDL 2018, AAAI 2020

Reviewer: PAMI, CVPR 2020, ICCV 2019, CVPR 2019, ICDAR 2019, CVPR 2018, SIGIR 2018

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