

CHEN LIANG

Email chenliang09.work@gmail.com
Homepage <https://harrylcl.c.github.io>
Google Scholar [Link](#)

RESEARCH INTEREST

Educational Data Mining, Applied Machine Learning

EDUCATION

The Pennsylvania State University August 2013 - August 2018

- Ph.D., College of Information Sciences and Technology
- Advisor: Prof. C. Lee Giles

Tsinghua University August 2009 - July 2013

- Bachelor of Engineering, Department of Computer Science and Technology

EXPERIENCE

Meta August 2018 - current
Research Scientist Menlo Park, CA

- Working on ads ranking personalization in the Ads Core ML team.
- Working on user modeling for ads ranking at Meta.

The Pennsylvania State University August 2013 - August 2018
Research Assistant at IIS lab University Park, PA

- Conducted research on machine learning methods for building educational applications.
- Studied concept prerequisite learning and automatic distractor generation for question generation.
- Developed *BBookX*, a novel computer-facilitated book creation system.

Qatar Computing Research Institute June 2015 - Aug 2015
Research Intern at Data Analytics Group Doha, Qatar

- Worked on methods for automatic risk of bias analysis for clinical trials.
- Contributed to *Rayyan*, a tool to help systematic review authors perform their job.
- Worked with *Dr. Mourad Ouzzani*.

Bosch Research and Technology Center May 2016 - Aug 2016
Research Intern at Natural Language Processing group Palo Alto, California

- Worked on natural language understanding using deep learning.
- Proposed a RNN-based joint model for both slot filling and intent detection. Improved Bosch's search engine to better understand users' intent.

Facebook May 2017 - Aug 2017
Software Engineering Intern at Search Ranking Menlo Park, California

- Worked on click modeling to improve the opinion search product.

Tsinghua University June 2011 - July 2013
Research Assistant at Natural Language Processing Group Beijing, China

- Conducted research on keyphrase extraction and expert finding.
- Worked with *Dr. Zhiyuan Liu* and *Dr. Maosong Sun*.

PUBLICATIONS

19. **Chen Liang**, Jianbo Ye, Han Zhao, Bart Pursel, and C. Lee Giles. “Active Learning of Strict Partial Orders: A Case Study on Concept Prerequisite Relations.” In *Proceedings of the 12th International Conference on Educational Data Mining*. (**EDM 2019**).
18. **Chen Liang**, Jianbo Ye, Shuting Wang, Bart Pursel, and C. Lee Giles. “Investigating Active Learning for Concept Prerequisite Learning.” In *Proceedings of the Thirty-Second AAAI Conference on Artificial Intelligence*. (**AAAI 2018**).
17. **Chen Liang**, Xiao Yang, Neisarg Dave, Drew Wham, Bart Pursel, and C. Lee Giles. “Distractor Generation for Multiple Choice Questions Using Learning to Rank”. In *Proceedings of the NAACL-HLT Workshop on Innovative Use of NLP for Building Educational Application*. (**BEA@NAACL 2018**)
16. **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.” In *Proceedings of the Knowledge Capture Conference*. (**K-CAP 2017**).
15. **Chen Liang**, Jianbo Ye, Zhaohui Wu, Bart Pursel, and C. Lee Giles. “Recovering Concept Prerequisite Relations from University Course Dependencies.” In *Proceedings of the Thirty-First AAAI Conference on Artificial Intelligence*. (**AAAI 2017**).
14. Dafang He, Xiao Yang, **Chen Liang**, Zihan Zhou, Alexander G Ororbia, Daniel Kifer, and C. Lee Giles. “Multi-scale FCN with Cascaded Instance Aware Segmentation for Arbitrary Oriented Word Spotting In The Wild.” In *Proceedings of the 2017 IEEE Conference on Computer Vision and Pattern Recognition*. (**CVPR 2017**).
13. Jian Wu, Sagnik Ray Choudhury, Agnese Chiatti, **Chen Liang**, and C. Lee Giles. “HESDK: A Hybrid Approach to Extracting Scientific Domain Knowledge Entities.” In *Proceedings of ACM/IEEE Joint Conference on Digital Libraries*. (**JCDL 2017**).
12. Shuting Wang, Alexander G. Ororbia II, Zhaohui Wu, Kyle Williams, **Chen Liang**, Bart Pursel, and C. Lee Giles. “Using Prerequisites to Extract Concept Maps from Textbooks.” In *Proceedings of the 25th ACM International Conference on Information and Knowledge Management*. (**CIKM 2016**).
11. **Chen Liang**, Shuting Wang, Zhaohui Wu, Kyle Williams, Bart Pursel, Benjamin Brautigam, Sherwyn Saul, Hannah Williams, Kyle Bowen, and C. Lee Giles. “BBookX: Building Online Open Books for Personalized Learning.” In *Proceedings of the 30th AAAI Conference on Artificial Intelligence*. (**AAAI 2016**). Demo paper.
10. Bart Pursel, **Chen Liang**, Shuting Wang, Zhaohui Wu, Kyle Williams, Benjamin Brautigam, Sherwyn Saul, Hannah Williams, Kyle Bowen, and C. Lee Giles. “BBookX: Design of an Automated Web-based Recommender System for the Creation of Open Learning Content.” In *Proceedings of 25th International Conference Companion on World Wide Web* (**WebED@WWW 2016**)
9. Jian Wu, **Chen Liang**, Huaiyu Yang, and C. Lee Giles. “CiteSeerX data: semanticizing scholarly papers.” In *Proceedings of the International Workshop on Semantic Big Data* (**SBD@SIGMOD 2016**)
8. **Chen Liang**, Zhaohui Wu, Wenyi Huang, and C. Lee Giles. “Measuring Prerequisite Relations Among Concepts.” In *Proceedings of the Conference on Empirical Methods in Natural Language Processing*. (**EMNLP 2015**). Short paper.

7. **Chen Liang**, Shuting Wang, Zhaohui Wu, Kyle Williams, Bart Pursel, Benjamin Brautigam, Sherwyn Saul, Hannah Williams, Kyle Bowen, and C. Lee Giles. “BBookX: An Automatic Book Creation Framework.” In *Proceedings of the 2015 ACM Symposium on Document Engineering*. (**DocEng 2015**).
6. Shuting Wang, **Chen Liang**, Zhaohui Wu, Kyle Williams, Bart Pursel, Benjamin Brautigam, Sherwyn Saul, Hannah Williams, Kyle Bowen, and C. Lee Giles. “Concept Hierarchy Extraction from Textbooks.” In *Proceedings of the 2015 ACM Symposium on Document Engineering*. (**DocEng 2015**).
5. Zhaohui Wu, **Chen Liang**, and C. Lee Giles. “Storybase: Towards Building a Knowledge Base for News Events.” In *Proceedings of 53rd Annual Meeting of the Association for Computational Linguistics*. (**ACL 2015**). Demo paper.
4. Wenyi Huang, Zhaohui Wu, **Chen Liang**, Prasenjit Mitra and C. Lee Giles. “A Neural Probabilistic Model for Context Based Citation Recommendation.” In *Proceedings of Twenty-Ninth AAAI Conference on Artificial Intelligence* (**AAAI 2015**).
3. Zhaohui Wu, Wenyi Huang, **Chen Liang** and C. Lee Giles. “Crowd-sourcing Web Knowledge for Metadata Extraction.” In *Proceedings of ACM/IEEE Joint Conference on Digital Libraries* (**JCDL 2014**). Short paper.
2. **Chen Liang***, Zhiyuan Liu* and Maosong Sun. “Expert Finding for Microblog Misinformation Identification.” In *Proceedings of the 24th International Conference on Computational Linguistics* (**COLING 2012**). Short paper. (* indicates equal contribution)
1. Zhiyuan Liu, **Chen Liang** and Maosong Sun. “Topical Word Trigger Model for Keyphrase Extraction.” In *Proceedings of the 24th International Conference on Computational Linguistics* (**COLING 2012**).

Doctoral Dissertation

- **Chen Liang**. “Machine Learning Methods for Building Educational Applications: Concept Prerequisite Learning and Automatic Distractor Generation.” The Pennsylvania State University, May 2018.

PATENTS

- Systems and methods for news event organization. US9817908B2. Nov 14, 2017

HONORS AND AWARDS

- Excellent Undergraduate, Dept. of Computer Science, Tsinghua University 2013
- Aeon Scholarship 2011

PROFESSIONAL SERVICES

- Program Committee
 - Annual Meeting of the Association for Computational Linguistics (ACL): 2019
 - Workshop on Innovative Use of NLP for Building Educational Applications (BEA): 2020, 2019, 2018
- Reviewer: CHI’20, BEA’20, ACL’19, BEA’19, BEA’18
- Sub-Reviewer: WWW’17, L@S’17, DocEng’17, AAAI’16, WWW’16, IJCAI’16, ASONAM’15, DocEng’15, TPD’15