

Tong Wang

CONTACT INFORMATION	AI Lab: S-4-26 Computer Science University of Massachusetts Boston Boston, MA 02125 USA	<i>Tel:</i> (857) 203-1856 <i>E-mail:</i> tongwang0001@gmail.com <i>Homepage:</i> http://www.cs.umb.edu/~twang
INTERESTS	Deep Learning, Natural Language Processing, Topic Model	
SKILLS	<ul style="list-style-type: none">• Programming Languages: Python, Java, C#, C, VB, L^AT_EX• Machine Learning Tools: Pytorch, Keras, Theano, Tensorflow, Numpy, scikit-learn, NLTK, Stanford CoreNLP, OpenNMT	
EDUCATION	University of Massachusetts Boston , Boston, MA USA	Jan 2014 - Dec 2017 (Expected) Ph.D., Computer Science, <i>Advisor: Dr. Ping Chen</i> , GPA: 3.98
	Northeastern University , Boston, MA USA	Sep 2011 - Jan 2013 M.S., Computer Systems Engineering, GPA: 3.79
	Huazhong Agricultural University , Wuhan, Hubei China	Sep 2006 - Jan 2010 B.S., Information and Computing Science, GPA: 3.52
WORK EXPERIENCE	Disney Research , Pittsburgh, PA <i>Lab Research Associate, Mentor: Dr. Albert Li</i>	May 2016 - Aug 2016
	<ul style="list-style-type: none">• Built a dataset for the narrative quality evaluation task by extracting stories and the upvotes from a social media website, Quora.• Applied multiple classifiers to distinguish stories and non-stories.• Proposed several deep neural networks that model the textual chunks in a story and their interrelations, which achieves 18.10% relative improvement over a random forest baseline, and 3.96% relative improvement over the best neural network baseline.	
	Shriver Center, Umass Medical School , Charlestown, MA USA <i>Research Intern, Mentor: John Rochford</i>	Jun 2015 - Aug 2015
	<ul style="list-style-type: none">• Implemented lexical simplification system to replace complex words with their simpler synonyms.• Used WordNet, Word2vec, NLTK tool to find simpler candidate words. The hybrid model shows a higher correlation with human assessment.	
	ioMosaic , Salem, NH USA <i>Software Engineer</i>	Jan 2013 - Dec 2013
	<ul style="list-style-type: none">• Developed and contributed in the web application ioXpress using C# and ASP.NET.	
ACADEMIC PROJECTS	University of Massachusetts Boston , Boston, MA USA <i>Research Assistant</i>	Jan 2014 - present
	<ul style="list-style-type: none">• Designed gated CNN-RNN neural network models for automatic narrative quality prediction, which achieves a good improvement over strong baselines. Sep 2016 - May 2017• Applied LSTM Encoder-Decoder model with global attention using English Wikipedia and Simple English Wikipedia for text simplification. Jan 2016 - May 2016• Applied topic model and opinion mining on social event “Chemical Spills in West Virginia”. Proposed new topic model that could model interrelations between words, and incorporates with word embedding information. Sep 2014 - May 2015• Studied the effectiveness of compression algorithm on data mining and text summarization evaluation. May 2014 - Sep 2015	

PUBLICATIONS

1. **Tong Wang**, Ping Chen, Albert Li. Predicting the Quality of Short Narratives from Social Media. The 26th International Joint Conference on Artificial Intelligence. Melbourne, Australia. (IJCAI 2017).
2. Ping Chen, Fei Wu and **Tong Wang**. A Semantic QA-Based Approach for Text Summarization Evaluation. arXiv:1704.06259
3. Jipeng Qiang, Ping Chen, **Tong Wang**, Xindong Wu. Topic Modeling over Short Texts by Incorporating Word Embeddings.” arXiv preprint arXiv:1609.08496 (2016). (PAKDD 2017).
4. **Tong Wang**, Ping Chen, Kevin Amaral and Jipeng Qiang. An Experimental Study of LSTM Encoder-Decoder Model for Text Simplification. arXiv:1609.03663. (IJCAI-HLTIA 2016)
5. Jipeng Qiang, Ping Chen, Ding Wei, **Tong Wang**, Fei Xie, and Xindong Wu. Topic Discovery from Heterogeneous Texts, IEEE, The 28th IEEE International Conference on Tools with Artificial Intelligence (ICTAI 2016).
6. **Tong Wang**, Ping Chen, John Rochford and Jipeng Qiang. Text Simplification using Neural Machine Translation. Student Abstract. (AAAI 2016)
7. **Tong Wang**, Ping Chen and Dan Simovici. A New Evaluation Measure Using Compression Dissimilarity on Text Summarization. *Applied Intelligence* (2016): 1-8
8. **Tong Wang**, Vish Viswanath, and Ping Chen. Extended topic model for word dependency. Proceedings of the 53rd Annual Meeting of the Association for Computational Linguistics. Vol. 2. 2015. (ACL 2015).
9. Dan Simovici, Ping Chen, **Tong Wang** and Dan Pletea. Compression and Data Mining. *Journal of Communication*, 2015

TEACHING
EXPERIENCE

University of Massachusetts Boston, Department of Computer Science
Instructor: (CS310) Advanced Data Structure and Algorithms May 2017 - July 2017

HONORS AND
AWARDS

- Randall Malbone Scholarship award 2017
- Oracle Doctoral Research Fellowship Award 2017
- 1st Grade Scholarship (3%), Huazhong Agricultural University 2009
- National Scholarship (1%), Ministry of Education of China 2007

SERVICE

Program Committee Member

- The 55th Annual Meeting of the Association for Computational Linguistics (ACL) 2017
- The 15th Annual Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL-HLT16) 2016
- The International Conference on Computing, Networking and Communications (ICNC) 2016
- The IEEE International Conference on Data Mining series (ICDM) PhD Forum 2015

Journal Reviewer

- Knowledge and Information Systems (KAIS), Social Network Analysis and Mining (SNAM), Communications of the Association for Information Systems (CAIS)

INVITED TALKS

- *Tricks from Deep Neural Networks*, CS697 Big Data Analytics, Umass Boston. Nov, 2016
- *Deep Learning in Natural Language Processing*, CS188SL-01 Science Gateway Seminar II, Umass Boston. Apr, 2016
- *Automated ICT Text Simplification for People with Cognitive Disability*, Boston Accessibility Conference. Sep, 2015