# Wei Xu

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The Ohio State University

Department of Computer Science and Engineering

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RESEARCH Natural Language Processing, Machine Learning, Social Media

CURRENT Assistant Professor, Ohio State University, Columbus, OH Aug 2016 – Present

Position Department of Computer Science and Engineering

EDUCATION Ph.D. in Computer Science, New York University, New York, NY Jan 2014

Thesis: Data-driven Approaches for Paraphrasing Across Language Variations

B.S. and M.S. in Computer Science, Tsinghua University, Beijing, CHINA 2004/2007

Thesis: Event-relevance Based Summarization

EXPERIENCE Postdoctoral Fellow, University of Pennsylvania, Philadelphia, PA Feb 2014 – Aug 2016

Computer Information and Science Department

Visiting Researcher, University of Washington, Seattle, WA Jan 2012 – Dec 2013

Computer Science and Engineering Department

Intern, Microsoft Research, Seattle, WA Jun – Sep 2011

Internet Services Research Center

Consultant, Educational Testing Service, Princeton, NJ Mar – Dec 2010

Natural Language and Speech Group

Intern, Amazon.com, Seattle, WA Jun – Aug 2010

Catalog Quality Group

SERVICES Workshop Chair: ACL (2017)

Area Chair: EMNLP (2016)

Publicity Chair: NAACL (2016)

Session Chair: EMNLP (2016, 2015), NAACL (2015), AAAI (2015), ACL (2014)

Program Committee:

ACL (2017, 2015, 2014 - Outstanding Reviewer Award, 2013), NAACL (2015), EMNLP (2015, 2014)

WWW (2017, 2016, 2015), AAAI (2016, 2015, 2012), KDD (2015), COLING (2014)

WWW Workshop on #Microposts (2016)

ACL Workshop on Social Factors in Natural Language Processing (2016)

EACL Workshop on Language Analysis in Social Media (2014)

Steering Committee: SemEval (2017)

Thesis Committee:

Maria Pershina, Ph.D. in Computer Science, New York University (2016)

Kai Cao, Ph.D. in Computer Science, New York University (2016)

Journal Reviewer:

Transactions of the Association for Computational (TACL)

Journal of Artificial Intelligence Research (JAIR)

#### Workshop Organizer:

- The 1st International Workshop on Noisy User-generatedText at ACL (2015)
- The 2nd International Workshop on Noisy User-generated Text at COLING (2016)
- The 3rd International Workshop on Noisy User-generated Text at EMNLP (2017) http://noisy-text.github.io/
- SemEval shared-task: Paraphrase and Semantic in Twitter (2015) (19 research teams worldwide participated) http://alt.qcri.org/semeval2015/task1/
- Mid-Atlantic Student Colloquium on Speech, Language and Learning (2016) http://www.mascsll.org/

# Publications Refereed Journal and Conference Papers (all have acceptance rates $\approx 25\%$ )

A Minimally Supervised Method for Recognizing and Normalizing Time Expressions in Twitter Jeniya Tabassum, Alan Ritter,  $\bf Wei~Xu$  Proceedings of EMNLP 2016

Optimizing Statistical Machine Translation for Simplification Wei Xu, Courtney Napoles, Ellie Pavlick, Quanze Chen, Chris Callison-Burch Transactions of the Association for Computational (TACL), 2016 oral presentation at ACL 2016

Discovering User Attribute Stylistic Differences via Paraphrasing Daniel Preotiuc, **Wei Xu**, Lyle Ungar Proceedings of AAAI 2016

Problems in Current Text Simplification Research: New Data Can Help Wei Xu, Chris Callison-Burch, Courtney Napoles Transactions of the Association for Computational (TACL), 2015 oral presentation at EMNLP 2015

Cost Optimization for Crowdsourcing Translation Mingkun Gao, **Wei Xu**, Chris Callison-Burch Proceedings of NAACL 2015

Extracting Lexically Divergent Paraphrases from Twitter Wei Xu, Alan Ritter, Chris Callison-Burch, William B. Dolan, Yangfeng Ji Transactions of the Association for Computational (TACL), 2014 oral presentation at NAACL 2015

Infusion of Labeled Data into Distant Supervision for Relation Extraction Maria Pershina, Bonan Min, **Wei Xu**, Ralph Grishman Proceedings of ACL 2014

Filling Knowledge Base Gaps for Distant Supervision of Relation Extraction Wei  ${\bf Xu}$ , Raphael Hoffmann, Le Zhao, Ralph Grishman Proceedings of ACL 2013

Paraphrasing for Style
Wei Xu, Alan Ritter, Bill Dolan, Ralph Grishman, Colin Cherry
Proceedings of COLING 2012

Exploiting Syntactic and Distributional Information for Spelling Correction with Web-Scale N-grams Models

Wei Xu, Joel Tetreault, Martin Chodorow, Ralph Grishman, Le Zhao Proceedings of EMNLP 2011

Passage Retrieval for Information Extraction using Distant Supervision

Wei Xu, Ralph Grishman, Le Zhao

Proceedings of IJCNLP 2011

Who, What, When, Where, Why? Comparing Multiple Approaches to the Cross-Lingual 5W Task Kristen Parton, Kathleen R. McKeown, Bob Coyne, Mona T. Diab, Ralph Grishman, Dilek Hakkani-Tür, Mary Harper, Heng Ji, Wei Yun Ma, Adam Meyers, Sara Stolbach, Ang Sun, Gokhan Tur, Wei Xu, Sibel Yaman

Proceedings of ACL-IJCNLP 2009

Extractive Summarization using Inter- and Intra- Event Relevance

Wenjie Li, **Wei Xu**, Mingli Wu, Chunfa Yuan, Qin Lu

Proceedings of COLING-ACL 2006

# Refereed Workshop Papers (all peer-reviewed)

Shared Tasks of the 2015 Workshop on Noisy User-generated Text: Twitter Lexical Normalization and Named Entity Recognition

Timothy Baldwin, Marie-Catherine de Marneffe, Bo Han, Young-Bum Kim, Alan Ritter, **Wei Xu** Proceedings of ACL 2015 Workshop on Noisy User-generated Text (WNUT)

SemEval-2015 Task 1: Paraphrase and Semantic Similarity in Twitter (PIT)

Wei Xu, Chris Callison-Burch, William B. Dolan

Proceedings of SemEval 2015

Poetry of the Crowd: A Human Computation Algorithm to Convert Prose into Rhyming Verse Quanze Chen, Chenyang Lei, **Wei Xu**, Ellie Pavlick, Chris Callison-Burch Proceedings of HCOMP 2014

Gathering and Generating Paraphrases from Twitter with Application to Normalization Wei Xu, Alan Ritter, Ralph Grishman

Proceedings of ACL 2013 Workshop on Building and Using Comparable Corpora (BUCC)

A Preliminary Study of Tweet Summarization using Information Extraction

Wei Xu, Ralph Grishman, Adam Meyers, Alan Ritter

Proceedings of NAACL 2013 Workshop on Language Analysis in Social Media (LASM)

New York University 2011 System for KBP (Knowledge Base Population) Slot Filing Ang Sun, Ralph Grishman, **Wei Xu**, Bonan Min

Proceedings of TAC 2011 (best performance system in NIST KBP-2011 Evaluation slot filling track)

A Parse-and-Trim Approach with Information Significance for Chinese Sentence Compression  $\mathbf{Wei}\ \mathbf{Xu}$ , Ralph Grishman

Proceedings of the 2009 Workshop on Language Generation and Summarisation (UCNLG)

Transducing Logical Relations from Automatic and Manual Annotation

Adam Meyers, Michiko Kosaka, Heng Ji, Nianwen Xue, Mary Harper, Ang Sun, **Wei Xu**, Shasha Liao

Proceedings of ACL-IJNLP Workshop on Linguistic Annotation 2009

 $Automatic\ Recognition\ of\ Logical\ Relations\ for\ English,\ Chinese\ and\ Japanese\ in\ the\ GLARF\ Framework$ 

Adam Meyers, Michiko Kosaka, Nianwen Xue, Heng Ji, Ang Sun, Shasha Liao, **Wei Xu** Proceedings of NAACL-HLT Workshop on Semantic Evaluations 2009

Using Non-Local Features to Improve Named Entity Recognition Recall Xinnian Mao, **Wei Xu**, Yuan Dong, Haila Wang Proceedings of PACLIC 2007

Domain Extension of Chinese Named Entity Recognition Wei Xu, Bin Fu, Liu Liu, Chunfa Yuan, Wenjie Li Frontiers of Content Computing (FCC) 2007

Deriving Event Relevance from the Ontology Constructed with Formal Concept Analysis **Wei Xu**, Wenjie Li, Mingli Wu, Wei Li, Chunfa Yuan Proceedings of CICLing 2006

Building Document Graph for Text Summarization: An Event-based Approach Wei Xu, Wenjie Li, Mingli Wu, Wei Li, Chunfa Yuan Proceedings of ICCPOL 2006

The THU/PolyU System at MSE 2006: An Event-relevance based Approach Wei Xu, Chunfa Yuan, Mingling Wu, Wenjie Li Proceedings of MSE 2006

## Theses

Data-driven Approaches for Paraphrasing Across Language Variations  $\mathbf{Wei}\ \mathbf{Xu}$  Ph.D. Thesis, Department of Computer Science, New York University

|                  | Syntax MT-based Text Simplification System and Crowdsourced Dataset (contribution to the Joshua MT Toolkit) https://github.com/cocoxu/simplification/ | 2015 – Ongoing |
|------------------|---|----------------|
|                  | NEWSELA Text Simplification Corpus https://newsela.com/data/  | Sep 2015       |
|                  | Multiple-instance Learning Paraphrase Model https://www.cis.upenn.edu/~xwe/multip/  | Dec 2014       |
|                  | Twitter Paraphrase Corpus (shared-task at SemEval-2015)<br>http://alt.qcri.org/semeval2015/task1/   | Oct 2014       |
|                  | Event-based Twitter Summarization System https://github.com/cocoxu/twittersummarization/  | Nov 2013       |
|                  | Twitter Normalization Phrase Table https://github.com/cocoxu/twitterparaphrase/   | Oct 2014       |
|                  | Parallel Shakespeare Corpus and Model https://github.com/cocoxu/Shakespeare/  | Jul 2012       |
| Invited<br>Talks | $\mathbf{Paraphrase} \approx \mathbf{Monolingual\ Translation}$ Amazon.com, Berlin, Germany   | Aug 2016       |

Multiple-instance Learning from Unlimited Text

Microsoft Research Asia, Beijing, China

Dec 2016

| University of Delaware, Newark, DE University of Edinburgh, Edinburgh, United Kingdom Ohio State University, Columbus, OH University of North Carolina, Chapel Hill, NC Arizona State University, Tempe, AZ Vanderbilt University, Nashville, TN Imperial College London, London, United Kingdom University of Waterloo, Waterloo, ON, Canada (CS Seminar) Indiana University, Bloomington, IN (Computer Science Colloquium Series) Washington University, St Louis, MI (Computer Science & Engineering Colloquia S Simon Fraser University, Vancouver, BC, Canada University of Alberta, Edmonton, AB, Canada (Special Lecture) Yale University, New Haven, CT (CS Talk) | Sep 2016<br>May 2016<br>Apr 2016<br>Apr 2016<br>Mar 2016<br>Mar 2016<br>Mar 2016<br>Feb 2016<br>Feb 2016<br>Feb 2016<br>Feb 2016<br>Feb 2016 |
|---|--|
| University of Maryland, College Park, MD (CLIP Colloquium)  | Oct 2015   |
| Ohio State University, Columbus, OH (Clippers Seminar)  | Oct 2015   |
| Large-scale Paraphrase Acquisition from Twitter   |  |
| DARPA's DEFT Project PI Meeting, Boulder, CO  | May 2015   |
|   |  |
| Learning and Generating Paraphrases from Twitter and Beyond   | A 001F   |
| Carnegie Mellon University, Pittsburgh, PA  | Apr 2015   |
| Columbia University, New York, NY (NLP Talk)  | Apr 2015   |
| Johns Hopkins University, Baltimore, MD (CLSP Colloquium)   | Feb 2015   |
| Paraphrases in Twitter<br>Twitter.com, San Francisco, CA  | Feb 2015   |
| Modeling Lexically Divergent Paraphrases in Twitter (and Shakespeare!)  |  |
| The City University of New York, New York, NY (NLP Seminar)   | Mar 2015   |
| IBM Research - Almaden, San Jose, CA  | Feb 2015   |
| University of California, Berkeley, CA  | Feb 2015   |
| The University of Texas, Austin, TX (Forum for Artificial Intelligence)   | Feb 2015   |
| Yahoo!, New York, NY  | Dec 2014   |
| Carnegie Mellon University, Pittsburgh, PA (CL+NLP Lunch Seminar)   | Nov 2014   |
| Microsoft Research, Seattle, WA (Visiting Speaker Series)   | $\mathrm{Aug}\ 2014$   |
| Incremental Information Extraction  |  |
| Stanford Research Institute, Palo Alto, CA  | Apr 2012   |
| IARPA's KDD Project PI Meeting, San Diego, CA   | May 2011   |
| Information Extraction Research   |  |
| University of Washington, Seattle, WA   | Jan 2011   |
| Chiversity of Washington, Scattle, Wit  | 5an 2011   |
| Event-based Summarization   |  |
| Thomson Reuters, Eagan, Minnesota, MN   | Nov 2009   |
| France Telecom, Beijing, CHINA  | Mar 2007   |
| Wuwei Lan (current PhD student at OSU) Pravar Mahajan (current masters student at OSU) Mingkun Gao (completed masters student, now a PhD student at UIUC) Siyu Qiu (completed masters student, now at Hulu.com) Quanze Chen (completed undergraduate student, now PhD at University of Washin   | $\operatorname{gton}$  |
| Bin Fu (completed undergraduate student, now at Google NYC)   | · /  |
| Chenyang Lei (completed undergraduate student, now at Microsoft Redmond)  |  |

STUDENT RESEARCH ADVISING

#### TEACHING

## Instructor, The Ohio State University, Columbus, OH

Spring 2017

Course: Speech and Language Processing (dual-listed undergraduate and graduate course)

https://cocoxu.github.io/courses/5525\_spring17.html

# Instructor, The Ohio State University, Columbus, OH

Autumn 2016

Course: Social Media and Text Analytics (dual-listed undergraduate and graduate course)

http://socialmedia-class.org/

Designed and taught a new course, covering from basic to state-of-the-art machine learning algorithms for text processing and social media analysis.

#### Instructor, New Brunswick, NJ

Summer 2016

North American Summer School on Logic, Language, and Information (NASSLLI)

Course: Social Media and Text Analytics (interdisciplinary)

http://ruccs.rutgers.edu/nasslli2016/

## Instructor, University of Pennsylvania, Philadelphia, PA

Summer 2015

Course: Social Media and Text Analytics (graduate-level)

#### REFERENCES

#### Chris Callison-Burch

# Assistant Professor, Computer and Information Science Department

University of Pennsylvania, Philadelphia, PA

Sloan Research Fellow (2014), Chair of the NAACL Executive Board (2012-2013)

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http://www.cis.upenn.edu/~ccb/

#### Bill Dolan

## Research Manager/Principal Researcher, Microsoft Research, Redmond, WA

Manager of the Natural Language Processing Group

**☎** (425) 706-3709

 $\boxtimes$  billdol@microsoft.com

http://research.microsoft.com/en-us/people/billdol/

#### Raymond J. Mooney

## Professor, Computer Science Department, University of Texas, Austin, TX

AAAI fellow (2005), ACM fellow (2010), ACL fellow (2014)

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⊠ mooney@cs.utexas.edu

https://www.cs.utexas.edu/~mooney/

#### Ralph Grishman

#### Professor, Computer Science Department, New York University, New York, NY

Department Chair (1986-1988), President of ACL (1991)

**☎** +1 212 998 3497

⊠ grishman@cs.nyu.edu

http://cs.nyu.edu/grishman/

#### Joel Tetreault

# Director of Research, Grammarly, New York, NY

Treasurer of NAACL (2013-2016)

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http://www.cs.rochester.edu/~tetreaul/academic.html