

William Yang Wang

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Education

- **Ph.D., Computer Science - Language Technologies**
Carnegie Mellon University, 2011 - 2016
Advisor: William W. Cohen (Machine Learning Department).
Additional thesis committee members: Tom Mitchell, Christos Faloutsos, Eric Horvitz.
- **M.S., Computer Science - Natural Language Processing**
Columbia University, 2009 - 2011
Advisors: Kathleen McKeown and Julia Hirschberg.
- **B.Eng., Computer Science**
School of Information Engineering, Shenzhen University, 2005 - 2009.

Research Interests

- Natural Language Processing (Information Extraction, Computational Social Science, Language & Vision, Dialogue and Language Generation)
- Machine Learning (Statistical Relational Learning, Deep Learning, Structure Learning, Reinforcement Learning, Adversarial Learning)
- Artificial Intelligence (Knowledge Representation & Reasoning, Knowledge Graphs)

Experience

- **University of California, Santa Barbara, CA 06/2016 – now.**
Director of UCSB Responsible Machine Learning Center, Director of UCSB NLP Group and Assistant Professor in Computer Science.
 1. I have organized a research agenda centered around reinforcement learning for NLP and CV, and we made some good progress in RL for semi-supervised learning, language generation, and knowledge graph reasoning. Tutorials were given at NAACL 2018, 2019 and ACL 2018.
 2. I have received several prestigious awards such as the 2018 DARPA Young Faculty Award, and faculty research awards from Google, Facebook, Adobe, Intel, and IBM.
 3. I built a very productive NLP/ML/AI research group in two years, and according to CSRankings.org, we are top-3 in NLP in the year of 2018 in the America.
 4. I have raised USD \$3.8M+ in research funding in the past three years.

- **Carnegie Mellon University**, Pittsburgh, PA 01/2013 – 05/2016.
Research Fellow, Advisor: William W. Cohen
- **Yahoo! Labs**, New York, NY 05/2015 – 08/2015.
Research Scientist Intern, Mentors: Amanda Stent, Drago Radev, and Yashar Mehdad.
- **Microsoft Research**, Redmond, WA 05/2012 – 08/2012 and 10/2012 – 01/2013.
Research Intern, Mentors: Dan Bohus, Ece Kamar, and Eric Horvitz.
- **Carnegie Mellon University**, Pittsburgh, PA 09/2011 – 05/2012.
R. K. Mellon Presidential Fellow, Advisors: Justine Cassell and Alan W Black.
- **Columbia University**, New York, NY 09/2009 – 08/2011.
 - *Research Assistant*, Natural Language Processing Group, Advisor: Kathleen McKeown. 09/2010 – 05/2011
 - *Research Assistant*, Spoken Language Processing Group, Advisor: Julia Hirschberg. 09/2009 – 05/2011
 - *Visiting Research Assistant*, Biomedical Informatics, Host: Noemie Elhadad. 05/2011 – 07/2011 notes.
 - *Visiting Research Assistant*, School of International and Public Affairs, Host: Suresh Naidu. 07/2011 – 08/2011
- Institute for Creative Technology, **University of Southern California**, Playa Vista, CA 05/2010 – 08/2010.
Visiting Research Assistant, Hosts: Ron Artstein, Kallirroi Georgila, Anton Leuski, and David Traum.
- **Chinese Academy of Sciences/Chinese University of Hong Kong**, China 11/2008 – 08/2009.
Visiting Research Student, Host: Lan Wang.

Major Awards and Honors

- **CVPR Best Student Paper Award, 2019** (awarded to 1 out of 5160 submissions)
- **Facebook Research Award, 2019**
- **IBM Faculty Award, 2019**
- **Google Faculty Research Award, 2018**
- **DARPA Young Faculty Award, 2018**
- **IBM Faculty Award, 2018**
- **Intel Faculty Grants, 2018**
- **Facebook Research Award, 2018**

- **Adobe Research Award, 2018**
- **IBM Faculty Award, 2017**
- **Notable Data Set Award, EMNLP 2015** (awarded to 2 out of 1300 submissions)
- **Best Paper Honorable Mention Award, CIKM 2013** (awarded to 3 out of 848 submissions)
- **Best Student Paper Award, ASRU 2013** (awarded to 1 out of 172 submissions)
- **Best Paper Award finalist, FLAIRS 2011** (awarded to 6 out of 179 submissions)

Research Grants, Sponsorships, and Awards

Total amount: \$3,933,021. Total as PI: \$2,155,521.

- 2019 Facebook Research Award: \$50,000.
- 2019 IEE Seed Grant: \$50,000.
- 2019 IBM Faculty Award: \$40,000.
- 2019 UCSB Academic Senate Research Grants: \$7,000.
- 2019 Google Gift Award: \$61,572.
- 2019 Army NSRDEC Grant: \$1,777,500.
- 2019 Google Faculty Research Award, Google: \$75,049.
- 2018 DARPA Young Faculty Award, DARPA: \$1,000,000.
- 2018 “Building NLP Tools for Healthy Online Conversations” and “Knowledge Guided Natural Language Generation”, Intel Faculty Grants: \$200,000.
- 2018 “Cross-Lingual and Open-World Task-Oriented Dialogue Schema Induction and Generation”, a Gift Fund from a leading Internet company: \$60,000.
- 2018 “Knowledge-Driven Neural Semantic Matching”, a leading software company: \$70,000.
- 2018 “Life-Long Open-World Knowledge Graph Reasoning”, IBM Faculty Award: \$40,000.
- 2018 “Low-Resource Machine Translation”, Facebook Research Award: \$40,000.
- 2018 “Language, Vision and Knowledge”, a Gift Fund from a leading Internet company: \$130,000.
- 2018 “Knowledge Graph Construction and Meeting Summarization”, LogMeIn Gift Fund: \$100,000.
- 2018 “Deep Inverse Reinforcement Learning for Visual Storytelling”, Adobe Research Award: \$50,000.
- 2018 NVIDIA Sponsorship: SoCal NLP Symposium: \$1,500.
- 2018 Disney Research Sponsorship: KBCOM workshop: \$1,000.
- 2018 Google AI Sponsorship: SoCal NLP Symposium: \$3,000.
- 2018 “Trust Score Inference from Networks”, UCSB Academic Senate Faculty Research Grant: \$14,000.
- 2018 Amazon AWS Cloud Credits for Research (formerly AWS Research Grants), \$20,000.

- 2017 “Reinforced Semi-Supervised Learning”, a gift fund from a leading Internet company: \$22,000.
- 2017 “Modeling Long-Term Semantic Dependencies for Dialogue”, a gift fund from a leading Internet company: \$35,000.
- 2017 “Multimodal Information Extraction”, IBM Faculty Award: \$40,000.
- 2017 “Automated Fake News Detection”, UCSB Academic Senate Faculty Research Grant: \$12,000.
- 2017 Google Cloud Platform Education Grant: \$11,000.
- 2016 Amazon AWS Cloud Credits for Research (formerly AWS Research Grants), \$20,000.
- 2016, 2017 NVIDIA GPU Grants, hardware gift: \$2,400

Travel Grants and Fellowships

- Facebook Fellowship Finalist, 2014-2015 and 2015-2016 (awarded to top ~20 out of hundreds of applicants globally)
- The CIKM Student Travel Grant from SIGIR, SIGWEB, and Facebook, 2013
- The Student Volunteer Award from EMNLP, 2013
- The Donald and Betty Walker Student Scholarship from ACL (1 of 5 awardees worldwide), 2012
- Richard King Mellon Presidential Fellowship, Carnegie Mellon University, 2011 - 2012
- Research Fellowship, Language Technologies Institute, Carnegie Mellon University, 2011
- Computer Science Chair’s Distinguished Fellowship, Columbia University (declined), 2011
- International Speech Communication Association (ISCA) Grant, 2011
- Graduate Research Assistantship with full tuition waiver and monthly stipend, Columbia University, 2010-2011
- Second Prize, the First Annual Spoken Dialog Systems Demo Competition, Columbia University, 2010
- University Scholarship, Top Class Honor, 2006-2007, 2007-2008
- Namtai Fellowship (Top 5%), 2006-2007, 2007-2008

Other Honors

- Best Reviewer Award, NAACL 2015 (awarded to a small fraction of reviewers)
- Best Presentation Runner-Up, LTI Student Research Symposium, Carnegie Mellon University, 2011

Peer-Reviewed Conference, Journal Papers, and Book Chapters

1. Prince Zizhuang Wang and William Yang Wang, “Neural Gaussian Copula for Variational Autoencoder”, to appear in Proceedings of 2019 Conference on Empirical Methods in Natural Language Processing and 9th International Joint Conference on Natural Language Processing (**EMNLP-IJCNLP 2019**), full paper, Hong Kong, Nov. 3-7, ACL.
2. Jiawei Wu, Wenhan Xiong and William Yang Wang, “Learning to Learn and Predict: A Meta-Learning Approach for Multi-Label Classification”, to appear in Proceedings of 2019 Conference on Empirical Methods in Natural Language Processing and 9th International Joint Conference on Natural Language Processing (**EMNLP-IJCNLP 2019**), full paper, Hong Kong, Nov. 3-7, ACL.
3. Jing Qian, Anna Bethke, Yinyin Liu, Elizabeth Belding and William Yang Wang, “A Benchmark Dataset for Learning to Intervene in Online Hate Speech”, to appear in Proceedings of 2019 Conference on Empirical Methods in Natural Language Processing and 9th International Joint Conference on Natural Language Processing (**EMNLP-IJCNLP 2019**), full paper, Hong Kong, Nov. 3-7, ACL.
4. Siyao Li, Deren Lei, Pengda Qin and William Yang Wang, “Deep Reinforcement Learning with Distributional Semantic Rewards for Abstractive Summarization”, to appear in Proceedings of 2019 Conference on Empirical Methods in Natural Language Processing and 9th International Joint Conference on Natural Language Processing (**EMNLP-IJCNLP 2019**), short paper, Hong Kong, Nov. 3-7, ACL.
5. Xin Wang, Jiawei Wu, Junkun Chen, Lei Li, Yuan-Fang Wang, and William Yang Wang, “VATEX: A Large-Scale, High-Quality Multilingual Dataset for Video-and-Language Research”, to appear in Proceedings of the 17th CVF/IEEE International Conference on Computer Vision (**ICCV 2019**), full paper, Seoul, Korea, Oct. 27 - Nov. 2, CVF/IEEE.
6. Wenhua Chen, Jianshu Chen, Pengda Qin, Xifeng Yan and William Yang Wang, “Semantically Conditioned Dialog Response Generation via Hierarchical Disentangled Self-Attention”, to appear in Proceedings of The 57th Annual Meeting of the Association for Computational Linguistics (**ACL 2019**), long paper, Florence, Italy, July 28th - August 2nd, ACL.
7. Jiawei Wu, Xin Wang and William Yang Wang, “Self-Supervised Dialogue Learning”, to appear in Proceedings of The 57th Annual Meeting of the Association for Computational Linguistics (**ACL 2019**), long paper, Florence, Italy, July 28th - August 2nd, ACL.
8. Pushkar shukla, Carlos Elmadjian, Richika Sharan, Vivek Kulkarni, Matthew Turk and William Yang Wang, “What Should I Ask? Using Conversationally Informative Rewards for Goal-Oriented Visual Dialog”, to appear in Proceedings of The 57th Annual Meeting of the Association for Computational Linguistics (**ACL 2019**), long paper, Florence, Italy, July 28th - August 2nd, ACL.
9. Wenhan Xiong, Mo Yu, Shiyu Chang, Xiaoxiao Guo and William Yang Wang, “Improving Question Answering over Incomplete KBs with Knowledge-Aware Reader”, to appear in Proceedings of The 57th Annual Meeting of the Association for Computational Linguistics (**ACL 2019**), long paper, Florence, Italy, July 28th - August 2nd, ACL.
10. Wenhan Xiong, Jiawei Wu, Hong Wang, Vivek Kulkarni, Mo Yu, Xiaoxiao Guo, Shiyu Chang and William Yang Wang, “TWEETQA: A Social Media Focused Question Answering Dataset”, to appear in Proceedings of The 57th Annual Meeting of the Association for Computational Linguistics (**ACL 2019**), long paper, Florence, Italy, July 28th - August 2nd, ACL.
11. Hong Wang, Xin Wang, Wenhan Xiong, Mo Yu, Xiaoxiao Guo, Shiyu Chang and William Yang Wang, “Self-Supervised Learning for Contextualized Extractive Summarization”, to appear in Proceedings of The 57th Annual Meeting of the Association for Computational Linguistics (**ACL 2019**), short paper, Florence, Italy, July 28th - August 2nd, ACL.

12. Hui Liu, Qingyu Yin and William Yang Wang, "Towards Explainable NLP: A Generative Explanation Framework for Text Classification", to appear in Proceedings of The 57th Annual Meeting of the Association for Computational Linguistics (**ACL 2019**), full paper, Florence, Italy, July 28th - August 2nd, ACL.
13. Tony Sun, Andrew Gaut, Shirlyn Tang, Yuxin Huang, Mai ElSherief, Jieyu Zhao, Diba Mirza, Kai-Wei Chang and William Yang Wang, "Debiasing Gender in Natural Language Processing: Literature Review", to appear in Proceedings of The 57th Annual Meeting of the Association for Computational Linguistics (**ACL 2019**), full paper, Florence, Italy, July 28th - August 2nd, ACL.
14. Xin Wang, Qiuyuan Huang, Asli Celikyilmaz, Jianfeng Gao, Dinghan Shen, Yuan-Fang Wang, William Yang Wang, Lei Zhang, "Reinforced Cross-Modal Matching and Self-Supervised Imitation Learning for Vision-Language Navigation", to appear in Proceedings of the 31st IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR 2019**), full oral paper, Long Beach, CA, USA, June 16-20, CVF/IEEE. (**Best Student Paper Award, 1/5160=0.02%**)
15. Hong Wang, Wenhan Xiong, Mo Yu, Xiaoxiao Guo, Shiyu Chang, and William Yang Wang, "Sentence Embedding Alignment for Lifelong Relation Extraction", to appear in Proceedings of the 2019 Annual Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (**NAACL-HLT 2019**), long paper, Minneapolis, MN, USA, June 3-5, ACL.
16. Prince Zizhuang Wang and William Yang Wang, "Riemannian Normalizing Flow on Variational Wasserstein Autoencoder for Text Modeling", to appear in Proceedings of the 2019 Annual Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (**NAACL-HLT 2019**), long oral paper, Minneapolis, MN, USA, June 3-5, ACL.
17. Wenhan Xiong, Jiawei Wu, Deren Lei, Mo Yu, Shiyu Chang, Xiaoxiao Guo, and William Yang Wang, "Imposing Label-Relational Inductive Bias for Extremely Fine-Grained Entity Typing", to appear in Proceedings of the 2019 Annual Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (**NAACL-HLT 2019**), long paper, Minneapolis, MN, USA, June 3-5, ACL.
18. Jiawei Wu, Xin Wang and William Yang Wang, "Extract and Edit: An Alternative to Back-Translation for Unsupervised Neural Machine Translation", to appear in Proceedings of the 2019 Annual Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (**NAACL-HLT 2019**), long oral paper, Minneapolis, MN, USA, June 3-5, ACL.
19. Jing Qian, Mai ElSherief, Elizabeth Belding and William Yang Wang, "Learning to Decipher Hate Symbols", to appear in Proceedings of the 2019 Annual Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (**NAACL-HLT 2019**), long oral paper, Minneapolis, MN, USA, June 3-5, ACL.
20. Wenhui Chen, Yu Su, Yilin Shen, Zhiyu Chen, Xifeng Yan, and William Yang Wang, "How Large A Vocabulary Does Text Classification Need? A Variational Approach on Vocabulary Selection", to appear in Proceedings of the 2019 Annual Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (**NAACL-HLT 2019**), long oral paper, Minneapolis, MN, USA, June 3-5, ACL.
21. Xin Wang, Jiawei Wu, Da Zhang, Yu Su, William Yang Wang, "Learning to Compose Topic-Aware Mixture of Experts for Zero-Shot Video Captioning", to appear in Proceedings of the Thirty-Third AAAI Conference on Artificial Intelligence (**AAAI 2019**), long oral paper, Honolulu, HI, USA, Jan 27 - Feb 1, 2019, AAAI. (Oral paper acceptance rate: 8%)

22. Yijun Xiao and William Yang Wang, "Quantifying Uncertainties in Natural Language Processing Tasks", to appear in Proceedings of the Thirty-Third AAAI Conference on Artificial Intelligence (**AAAI 2019**), long paper, Honolulu, HI, USA, Jan 27 - Feb 1, 2019, AAAI.
23. Wenhan Xiong, Mo Yu, Shiyu Chang, Xiaoxiao Guo and William Yang Wang, "One-Shot Relational Learning for Knowledge Graphs", to appear in Proceedings of the 2018 Conference on Empirical Methods in Natural Language Processing (**EMNLP 2018**), long paper, Brussels, Belgium, Oct 31-Nov 4, ACL.
24. Wenhua Chen, Jianshu Chen, Yu Su, Xin Wang, Dong Yu, Xifeng Yan and William Yang Wang, "XL-NBT: A Cross-lingual Neural Belief Tracking Framework", to appear in Proceedings of the 2018 Conference on Empirical Methods in Natural Language Processing (**EMNLP 2018**), long paper, Brussels, Belgium, Oct 31-Nov 4, ACL.
25. Jing Qian, Mai ElSherief, Elizabeth Belding and William Yang Wang, "Hierarchical CVAE for Fine-Grained Hate Speech Classification", to appear in Proceedings of the 2018 Conference on Empirical Methods in Natural Language Processing (**EMNLP 2018**), long paper, Brussels, Belgium, Oct 31-Nov 4, ACL.
26. Vivek Kulkarni, Junting Ye, Steve Skiena and William Yang Wang, "Multi-view Models for Political Ideology Detection of News Articles", to appear in Proceedings of the 2018 Conference on Empirical Methods in Natural Language Processing (**EMNLP 2018**), long paper, Brussels, Belgium, Oct 31-Nov 4, ACL.
27. Qingyu Yin, Yu Zhang, Wei-Nan Zhang, Ting Liu, and William Yang Wang, "Zero Pronoun Resolution with Attention-based Neural Network", in Proceedings of the 27th International Conference on Computational Linguistics (**COLING 2018**), full paper, Santa Fe, New Mexico, USA, August 20-26, ACL.
28. Xin Wang, Wenhan Xiong, Hongmin Wang, William Yang Wang, "Look Before You Leap: Bridging Model-Free and Model-Based Reinforcement Learning for Planned-Ahead Vision-and-Language Navigation", in Proceedings of the European Conference on Computer Vision (**ECCV 2018**), full paper, Munich, Germany, Sept. 8-14, Springer.
29. Pengda Qin, Weiran Xu, and William Yang Wang, "DSGAN: Generative Adversarial Training for Robust Distant Supervision Relation Extraction", in Proceedings of the 56th Annual Meeting of the Association for Computational Linguistics (**ACL 2018**), full paper, Melbourne, Australia, July 15-20, 2018, ACL.
30. Qingyu Yin, Yu Zhang, Wei-Nan Zhang, Ting Liu, and William Yang Wang, "Deep Reinforcement Learning for Chinese Zero Pronoun Resolution", in Proceedings of the 56th Annual Meeting of the Association for Computational Linguistics (**ACL 2018**), full paper, Melbourne, Australia, July 15-20, 2018, ACL.
31. Xin Wang, Wenhua Chen, Yuan-Fang Wang, and William Yang Wang, "No Metrics Are Perfect: Adversarial Reward Learning for Visual Storytelling", in Proceedings of the 56th Annual Meeting of the Association for Computational Linguistics (**ACL 2018**), full paper, Melbourne, Australia, July 15-20, 2018, ACL.
32. Pengda Qin, Weiran Xu, and William Yang Wang, "Robust Distant Supervision via Deep Reinforcement Learning", in Proceedings of the 56th Annual Meeting of the Association for Computational Linguistics (**ACL 2018**), full paper, Melbourne, Australia, July 15-20, 2018, ACL.
33. Xianda Zhou and William Yang Wang, "MOJITALK: Generating Emotional Responses at Scale", in Proceedings of the 56th Annual Meeting of the Association for Computational Linguistics (**ACL 2018**), full paper, Melbourne, Australia, July 15-20, 2018, ACL.

34. Wenhan Xiong, Xiaoxiao Guo, Mo Yu, Shiyu Chang, Bowen Zhou, and William Yang Wang, "Scheduled Policy Optimization for Natural Language Communication with Intelligent Agents", in Proceedings of the 27th International Joint Conference on Artificial Intelligence and the 23rd European Conference on Artificial Intelligence (**IJCAI-ECAI 2018**), full oral paper, Stockholm, Sweden, July 13-19, 2018, IJCAI.
35. Mai Elshierief, Vivek Kulkarni, Dana Nguyen, William Yang Wang, and Elizabeth Belding, "Hate Lingo: A Target-based Linguistic Analysis of Hate Speech in Social Media", in Proceedings of the International AAAI Conference on Web and Social Media (**ICWSM 2018**), full paper, Stanford, CA, USA, June 25-28, 2018, AAAI.
36. Xin Wang, Wenhua Chen, Jiawei Wu, Yuan-Fang Wang, and **William Yang Wang**, "Video Captioning via Hierarchical Reinforcement Learning", in Proceedings of the Thirtieth IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR 2018**), full paper, Salt Lake City, Utah, USA, June 18 - June 22, 2018, IEEE/CVF.
37. Jing Qian, Mai Elshierief, Elizabeth Belding, and William Yang Wang, "Leveraging Intra-User and Inter-User Representation Learning for Automated Hate Speech Detection", in Proceedings of The 16th Annual Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (**NAACL HLT 2018**), short paper, New Orleans, LA, USA, June 1 - June 6, 2018, ACL.
38. Xin Wang, Yuan-Fang Wang, and **William Yang Wang**, "Watch, Listen, and Describe: Globally and Locally Aligned Cross-Modal Attentions for Video Captioning", in Proceedings of The 16th Annual Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (**NAACL HLT 2018**), short paper, New Orleans, LA, USA, June 1 - June 6, 2018, ACL.
39. Wenhua Chen, Wenhan Xiong, Xifeng Yan and **William Yang Wang**, "Variational Knowledge Graph Reasoning", in Proceedings of The 16th Annual Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (**NAACL HLT 2018**), long oral paper, New Orleans, LA, USA, June 1 - June 6, 2018, ACL.
40. Jiawei Wu, Lei Li, and **William Yang Wang**, "Reinforced Co-Training", in Proceedings of The 16th Annual Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (**NAACL HLT 2018**), long paper, New Orleans, LA, USA, June 1 - June 6, 2018, ACL.
41. Vivek Kulkarni and **William Yang Wang**, "Simple Models for Word Formation in Slang", in Proceedings of The 16th Annual Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (**NAACL HLT 2018**), long paper, New Orleans, LA, USA, June 1 - June 6, 2018, ACL.
42. Liwei Cai and **William Yang Wang**, "KBGAN: Adversarial Learning for Knowledge Graph Embeddings", in Proceedings of The 16th Annual Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (**NAACL HLT 2018**), long oral paper, New Orleans, LA, USA, June 1 - June 6, 2018, ACL.
43. Ke Ni, and **William Yang Wang**, "Learning to Explain Non-Standard English Words and Phrases", in Proceedings of the 8th International Joint Conference on Natural Language Processing (**IJCNLP 2017**), short paper, Taipei, Taiwan, Nov.27-Dec.1, AFNLP.
44. Wenhan Xiong, Thien Hoang, **William Yang Wang**, "DeepPath: A Reinforcement Learning Method for Knowledge Graph Reasoning", in Proceedings of the 2017 Conference on Empirical Methods in Natural Language Processing (**EMNLP 2017**), long oral paper, Copenhagen, Denmark, Sept. 7-11, ACL.

45. YiYao Huang, and **William Yang Wang**, "Deep Residual Learning for Weakly-Supervised Relation Extraction", in Proceedings of the 2017 Conference on Empirical Methods in Natural Language Processing (**EMNLP 2017**), short paper, Copenhagen, Denmark, Sept. 7-11, ACL.
46. **William Yang Wang**, "Liar, Liar Pants on Fire": A New Benchmark Dataset for Fake News Detection, in Proceedings of the 55th Annual Meeting of the Association for Computational Linguistics (**ACL 2017**), short paper, Vancouver, BC, Canada, July 30-August 4, ACL.
47. **William Yang Wang**, and William W. Cohen, "Learning First-Order Logic Embeddings via Matrix Factorization", in Proceedings of the 25th International Joint Conference on Artificial Intelligence (**IJCAI 2016**), full paper for oral presentation, New York, NY, U.S.A., July 9-15, IJCAI.
48. **William Yang Wang**, Yashar Mehdad, Dragomir Radev, and Amanda Stent, "A Low-Rank Approximation Approach to Learning Joint Embeddings of News Stories and Images for Timeline Summarization", in Proceedings of the 15th Annual Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (**NAACL HLT 2016**), long paper, San Diego, CA, U.S.A., June 13-15, ACL.
49. **William Yang Wang** and Diyi Yang, "That's So Annoying!!!: A Lexical and Frame-Semantic Embedding Based Data Augmentation Approach to Automatic Categorization of Annoying Behaviors using #petpeeve Tweets", in Proceedings of the 2015 Conference on Empirical Methods in Natural Language Processing (**EMNLP 2015**), short paper, Lisbon, Portugal, Sept 19-21, ACL. (**EMNLP 2015 Inaugural Notable Data Set Award**, 2/1300=0.2%)
50. **William Yang Wang**, Kathryn Mazaitis, and William W. Cohen, "A Soft Version of Predicate Invention Based on Structured Sparsity", in Proceedings of the 24th International Joint Conference on Artificial Intelligence (**IJCAI 2015**), full paper for oral presentation, Buenos Aires, Argentina, July 25-31, IJCAI.
51. **William Yang Wang** and William W. Cohen, "Joint Information Extraction and Reasoning: A Scalable Statistical Relational Learning Approach", in Proceedings of the 53rd Annual Meeting of the Association for Computational Linguistics and The 7th International Joint Conference of the Asian Federation of Natural Language Processing (**ACL-IJCNLP 2015**), long paper for oral presentation, Beijing, China, July 26-31, ACL.
52. Yun-Nung Chen, **William Yang Wang**, Anatole Gershman and Alexander Rudnicky, "Matrix Factorization with Knowledge Graph Propagation for Unsupervised Spoken Language Understanding", in Proceedings of the 53rd Annual Meeting of the Association for Computational Linguistics and The 7th International Joint Conference of the Asian Federation of Natural Language Processing (**ACL-IJCNLP 2015**), long paper for oral presentation, Beijing, China, July 26-31, ACL.
53. **William Yang Wang**, Kathryn Mazaitis, Ni Lao, William W. Cohen, "Efficient Inference and Learning in a Large Knowledge Base: Reasoning with Extracted Information using a Locally Groundable First-Order Probabilistic Logic", in Machine Learning Journal (**MLJ**), 2015, Springer.
54. **William Yang Wang**, Miaomiao Wen, "I Can Has Cheezburger? A Nonparanormal Approach to Combining Textual and Visual Information for Predicting and Generating Popular Meme Descriptions", in Proceedings of the 2015 Conference of the North American Chapter of the Association for Computational Linguistics - Human Language Technologies (**NAACL HLT 2015**), long paper, Denver, CO, May 31 - June 5, ACL. Covered by U.S. and Spanish media.
55. Yun-Nung Chen, **William Yang Wang**, and Alex Rudnicky, "Jointly Modeling Inter-Slot Relations by Random Walk on Knowledge Graphs for Unsupervised Spoken Language Understanding", in Proceedings of the 2015 Conference of the North American Chapter of the Association for Computational Linguistics - Human Language Technologies (**NAACL HLT 2015**), long paper, Denver, CO, May 31 - June 5, ACL.

56. Yun-Nung Chen, **William Yang Wang**, and Alex Rudnicky, "Learning Semantic Hierarchy with Distributed Representations for Unsupervised Spoken Language Understanding", in Proceedings of the 16th Annual Conference of the International Speech Communication Association (**INTERSPEECH 2015**), Dresden, Germany, Sept. 6-10, ISCA.
57. **William Yang Wang**, Kathryn Mazaitis, William W. Cohen, "Structure Learning via Parameter Learning", in Proceedings of the 23rd ACM International Conference on Information and Knowledge Management (**CIKM 2014**), full oral paper, Shanghai, China, Nov. 3-7th, ACM.
58. **William Yang Wang**, Lingpeng Kong, Kathryn Mazaitis, William W. Cohen, "Dependency Parsing for Weibo: An Efficient Probabilistic Logic Programming Approach", in Proceedings of the 2014 Conference on Empirical Methods in Natural Language Processing (**EMNLP 2014**), short paper, Doha, Qatar, Oct. 25-29, ACL.
59. **William Yang Wang**, and Zhenhao Hua, "A Semiparametric Gaussian Copula Regression Model for Predicting Financial Risks from Earnings Calls", in Proceedings of the 52nd Annual Meeting of the Association for Computational Linguistics (**ACL 2014**), long paper, Baltimore, MD, June 22-27, ACL.
60. **William Yang Wang**, Kathryn Mazaitis, William W. Cohen, "ProPPR: Efficient First-Order Probabilistic Logic Programming for Structure Discovery, Parameter Learning, and Scalable Inference", in Proceedings of the AAAI 2014 International Workshop on Statistical Relational AI (**StarAI 2014**), position paper, Québec City, Québec, Canada, July 27-31, AAAI.
61. Yun-Nung Chen, **William Yang Wang**, and Alex Rudnicky, "Leveraging Frame Semantics and Distributional Semantics for Unsupervised Semantic Slot Induction for Spoken Dialogue Systems", in Proceedings of IEEE **SLT 2014**, Lake Tahoe, California and Nevada, Dec 7-10, IEEE.
62. **William Yang Wang**, Kathryn Mazaitis, William W. Cohen, "Programming with Personalized PageRank: A Locally Groundable First-Order Probabilistic Logic", in Proceedings of the 22nd ACM International Conference on Information and Knowledge Management (**CIKM 2013**), full oral paper, Burlingame, CA, USA, Oct. 27th - Nov. 1st, ACM. (**Best Paper Honorable Mention Award**)
63. **William Yang Wang**, Edward Lin, John Kominek, "This Text has the Scent of Starbucks: A Laplacian Structured Sparsity Model for Computational Branding Analytics", in Proceedings of the 2013 Conference on Empirical Methods in Natural Language Processing (**EMNLP 2013**), full paper, Seattle, WA, USA, Oct. 18-21, ACL.
64. Di Wang, Chenyan Xiong, **William Yang Wang**, "Automatic Domain Partitioning for Multi-Domain Learning", in Proceedings of the 2013 Conference on Empirical Methods in Natural Language Processing (**EMNLP 2013**), short paper, Seattle, WA, USA, Oct. 18-21, ACL.
65. Yun-Nung Chen, **William Yang Wang**, and Alex Rudnicky, "Unsupervised Induction and Filling of Semantic Slots for Spoken Dialogue Systems using Frame-Semantic Parsing", in Proceedings of the IEEE **ASRU 2013**, Olomouc, Czech Republic, Dec. 8-12, 2013, IEEE. (**Best Student Paper Award**)
66. Yun-Nung Chen, **William Yang Wang**, and Alex Rudnicky, "An Empirical Investigation of Sparse Log-Linear Models for Improved Dialogue Act Classification", in Proceedings of 38th International Conference on Acoustics, Speech, and Signal Processing (**ICASSP 2013**), Vancouver, May 26-31, IEEE.
67. **William Yang Wang**, Dan Bohus, Ece Kamar, and Eric Horvitz, "Crowdsourcing the Acquisition of Natural Language Corpora: Methods and Observations", in Proceedings of IEEE **SLT 2012**, Miami, Florida, Dec 2-5, IEEE.
68. **William Yang Wang**, Elijah Mayfield, Suresh Naidu, and Jeremiah Dittmar, "Historical Analysis of Legal Opinions with a Sparse Mixed-Effects Latent Variable Model", in Proceedings of the 50th

- Annual Meeting of the Association for Computational Linguistics (**ACL 2012**), full oral paper, Jeju Island, Korea, July 8-14, ACL. (Oral Presentation Long Paper Acceptance Rate: 14%)
69. **William Yang Wang**, Samantha Finkelstein, Amy Ogan, Alan W Black and Justine Cassell, “‘Love ya, jerkface’: using Sparse Log-Linear Models to Build Positive (and Impolite) Relationships with Teens”, in Proceedings of the 13th annual SIGdial Meeting on Discourse and Dialogue (**SIGDIAL 2012**), full oral paper, Seoul, Korea, July 5-6, ACL.
 70. **William Yang Wang**, Fadi Biadisy, Andrew Rosenberg, Julia Hirschberg, “Automatic Detection of Speaker State: Lexical, Prosodic, and Phonetic Approaches to Level-of-Interest and Intoxication Classification”, in the **Computer Speech and Language** journal, 2012.
 71. **William Yang Wang** and Kallirroi Georgila, “Automatic Detection of Unnatural Word-Level Segments in Unit-Selection Speech Synthesis”, in Proceedings of IEEE **ASRU 2011**, Hawaii, USA, Dec. 11-15, IEEE.
 72. **William Yang Wang**, Kapil Thadani and Kathleen McKeown, “Identifying Event Descriptions using Co-training with Online News Summaries”, in Proceedings of the 5th International Joint Conference on Natural Language Processing (**IJCNLP 2011**), full oral paper, Chiang Mai, Thailand, Nov. 8-13, ACL-AFNLP.
 73. **William Yang Wang**, Ron Artstein, Anton Leuski, and David Traum, “Improving Spoken Dialogue Understanding Using Phonetic Mixture Models”, in Cross-Disciplinary Advances in Applied Natural Language Processing: Issues and Approaches, IGI Global. (This is an invited book chapter based on the FLAIRS 2011 paper.)
 74. Fadi Biadisy, **William Yang Wang**, Andrew Rosenberg, Julia Hirschberg, “Intoxication Detection using Phonetic, Phonotactic and Prosodic Cues”, in Proceedings of the 12th Annual Conference of the International Speech Communication Association (**INTERSPEECH 2011**), oral paper, Florence, Italy 28-31 Aug., 2011.
 75. **William Yang Wang** and Julia Hirschberg, “Detecting Levels of Interest from Spoken Dialog with Multistream Prediction Feedback and Similarity Based Fusion Learning”, in Proceedings of the 12th Annual SIGdial Meeting on Discourse and Dialogue (**SIGDIAL 2011**), oral paper, Portland, Oregon, USA 17-18 June 2011.
 76. **William Yang Wang**, Ron Artstein, Anton Leuski, and David Traum, “Improving spoken dialogue understanding using phonetic mixture models”, in Proceedings of the 24th International Florida Artificial Intelligence Research Society Conference (**FLAIRS-24**), oral paper, Palm Beach, Florida, USA 18-20 May 2011 (**Best Paper Honorable Mention Award**)
 77. **William Yang Wang** and Kathleen McKeown, “Got You!: Automatic Vandalism Detection in Wikipedia with Web-based Syntactic-Semantic Modeling”, in Proceedings of The 23rd International Conference on Computational Linguistics (**COLING 2010**) (Oral Presentation Paper Acceptance Rate: 19%)
 78. **William Yang Wang**, Lan Wang and Chongguo Li, “Using Extended Letter-to-sound Rules to Detect Pronunciation Errors Made by Chinese Learner of English”, in Proceedings of The 2010 International Conference on Computational Intelligence and Software Engineering (**CiSE 2010**) (Note: This is an extended version of 2009 CAS Technical Report.)

Workshop Papers

1. **William Yang Wang**, “Position Paper”, in Proceedings of the 8th Young Researchers’ Roundtable on Spoken Dialog Systems (**YRRSDS 2012**), July 3-4, Seoul, South Korea.

2. **William Yang Wang**, “Position Paper”, in Proceedings of the 7th Young Researchers’ Roundtable on Spoken Dialog Systems (**YRRSDS 2011**), June 15-16, Portland, Oregon, USA.
3. **William Yang Wang**, “Automatic Intoxication Detection using Accent Identification Approaches”, in Proceedings of the 2011 CMU LTI Student Research Symposium (**SRS 2011**) and the first Mid-Atlantic Student Colloquium on Speech, Language and Learning (**MASC**), oral presentations. (This is based on the joint work with F. Biadsky, A. Rosenberg, and J. Hirschberg at Interspeech 2011.)

Professional Activities

- Area Chair, Machine Learning, *Conference on Empirical Methods in Natural Language Processing (EMNLP)* 2019
- Area Chair, *the Thirty-Fourth AAAI Conference on Artificial Intelligence (AAAI)* 2020
- Area Chair, *the 57th Annual Meeting of the Association for Computational Linguistics (ACL)* 2019
- Area Chair, *the 33rd AAAI Conference on Artificial Intelligence (AAAI)* 2019
- Area Chair, *the 17th Annual Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL-HLT)* 2019
- Best Paper Committee, *Conference on Empirical Methods in Natural Language Processing (EMNLP)* 2018
- Area Chair, Information Extraction and Question Answering, *Conference on Empirical Methods in Natural Language Processing (EMNLP)* 2018
- Area Chair, Computational Social Science, *the 16th Annual Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL-HLT)* 2018
- Senior Program committee member, *the 27th International Joint Conference on Artificial Intelligence and the 23rd European Conference on Artificial Intelligence (IJCAI-ECAI)* 2018
- Area Chair, Machine Learning, *the 55th Annual Meeting of the Association for Computational Linguistics (ACL)* 2017
- Publicity Co-Chair, *the 28th ACM International Conference on Information and Knowledge Management (CIKM)*, 2019.
- Publicity Co-Chair, *the IEEE International Conference on Data Mining (ICDM)*, 2018.
- Proposal reviewer, Natural Sciences and Engineering Research Council of Canada, 2018.
- Proposal reviewer, Chilean National Science and Technology Commission (CONICYT - Chile), 2018.
- Panelist, National Science Foundation, Directorate for Computer & Information Science & Engineering, Core Programs (NSF CISE) 2017
- Proposal reviewer, Research Foundation Flanders (formerly National Fund for Scientific Research), Belgium 2017
- Area Chair, Information Extraction, *China National Conference on Computational Linguistics (CCL)* 2017
- Publicity Co-chair, *China National Conference on Computational Linguistics* 2018
- Publicity Co-chair, *Natural Language Processing and Chinese Computing (NLPCC)* 2017

- Area Chair, *Natural Language Processing and Chinese Computing (NLPCC)* 2018
- Session chair for two text mining sessions, *the 23rd ACM International Conference on Information and Knowledge Management (CIKM)* 2014
- Session chair for machine learning and data mining, *the 22nd ACM International Conference on Information and Knowledge Management (CIKM)* 2013
- PC co-chair, *the 11th annual Language Technologies Institute Student Research Symposium (SRS)* 2013
- Program committee member, *International Conference on Learning Representations* 2019
- Program committee member, *the 24th International Joint Conference on Artificial Intelligence (IJCAI)* 2015
- Program committee member, *the Conference on Empirical Methods in Natural Language Processing (EMNLP)* 2015-2017
- Program committee member, *the SIGNLL Conference on Computational Natural Language Learning (CoNLL)* 2018
- Technical program committee member, *the 16th Annual Conference of the International Speech Communication Association (INTERSPEECH)* 2015-2018
- Program committee member, *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD)* 2018
- Program committee member, *the North American Chapter of the Association for Computational Linguistics - Human Language Technologies (NAACL-HLT)* 2015,2016
- Program committee member, *the International Conference on Computational Linguistics (COLING)* 2016
- Program committee member, *the AAAI Conference on Artificial Intelligence (AAAI)* 2018
- Program committee member, *the Annual Meeting of the Association for Computational Linguistics (ACL)* 2018
- Program committee member, *the International Conference on Machine Learning (ICML)* 2018, 2019
- Reviewer, *Neural Information Processing Systems (NIPS)* 2018
- Scientific committee member, *the International Conference on Language Resources and Evaluation (LREC)* 2018
- Program committee member, *the 1st IEEE Workshop on Fake Multimedia (FakeMM)* 2018
- Program committee member, *1st Workshop on Trolling, Aggression and Cyberbullying (TRAC-1) at 27th International Conference on Computational Linguistics (COLING-2018) (TRAC-1)* 2018
- Program committee member, *the International Joint Conference on Natural Language Processing (IJCNLP)* 2017
- Program committee member, *the International Conference on Affective Computing and Intelligent Interaction (ACII)* 2017
- Program committee member, *the Annual Meeting of the Association for Computational Linguistics Student Research Workshop (ACL SRW)* 2016, 2017
- Program committee member, *the Annual Meeting of the Association for Computational Linguistics Demo Session (ACL Demo)* 2017, 2018

- Program committee member, *the Conference on Empirical Methods in Natural Language Processing (EMNLP Demo)* 2018
- Program committee member, *European Chapter of the Association for Computational Linguistics (EACL SRW)* 2017
- Program committee member, *the Women and Underrepresented Minorities in NLP Workshop (WiNLP)* 2017, 2018
- Program committee member, *International Workshop on Natural Language Processing for Social Media (SocialNLP)* at IJCAI/EMNLP/EACL 2016, 2017
- Program committee member, *Workshop on Declarative Learning Based Programming (DeLBP)* at IJCAI 2017 and AAAI 2018
- Program committee member, *ACM SIGSPATIAL Workshop on AI and Deep Learning for Geographic Knowledge Discovery* at ACM SIGSPATIAL 2017-2018
- Program committee member, *the 5th CCF Conference on Natural Language Processing & Chinese Computing (NLPCC)* 2016
- Program committee member, *the ACM International Conference on Information and Knowledge Management (CIKM)* 2014,2015,2016
- Program committee member, *the 2nd Mid-Atlantic Student Colloquium on Speech, Language, and Learning (MASC-SLL)* 2012
- Journal reviewer, *IEEE Transactions on Affective Computing (IEEE TAC)* 2010
- Journal reviewer, *IEEE Signal Processing Letters (IEEE SPL)* 2011
- Journal reviewer, *IEEE Communications Letters (IEEE CL)* 2010, 2011
- Journal reviewer, *Journal of the American Society for Information Science and Technology (JASIST)* 2012, 2014 x 2
- Journal reviewer, *Educational Research Review (ERR)* 2012
- Journal reviewer, *IEEE Transactions on Audio, Speech, and Language Processing (IEEE TASL)* 2013 x 3, 2014
- Journal reviewer, *Bioinformatics* 2013
- Journal reviewer, *Journal of Medical Internet Research (JMIR)* 2013, 2014,2016
- Journal reviewer, *Artificial Intelligence (AIJ)* 2014
- Journal reviewer, *Journal of Artificial Intelligence Research (JAIR)* 2016
- Journal reviewer, *Speech Communication* 2016
- Journal reviewer, *Natural Language Engineering (NLE)* 2015,2016,2017,2018
- Journal reviewer, *Knowledge-Based Systems* 2017
- Journal reviewer, *Machine Learning Journal* 2017
- Journal reviewer, *IEEE Transactions on Knowledge and Data Engineering* 2017
- Journal reviewer, *Data Mining and Knowledge Discovery* 2018

- Reviewer, *the IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)* 2015-2019
- Reviewer, *the 18th ACM Conference on Computer Supported Cooperative Work and Social Computing (CSCW)* 2015,2016
- Reviewer, *the ACM CHI Conference on Human Factors in Computing Systems (CHI)* 2015
- Reviewer, *the 20th ACM Conference on Intelligent User Interfaces (IUI)* 2015
- Reviewer, *the 17th ACM Conference on Computer Supported Cooperative Work and Social Computing (CSCW)* 2014
- Organizing committee, *the 7th Young Researchers' Roundtable on Spoken Dialog Systems (YRRSDS)* 2011
- Organizing committee, *the 10th and 11th annual LTI Student Research Symposium (SRS)* 2012, 2013
- Volunteer, *the 2013 Conference on Empirical Methods in Natural Language Processing (EMNLP)* 2013
- Volunteer, *the 12th and 13th annual SIGdial Meeting on Discourse and Dialogue (SIGDIAL)* 2011, 2012
- Student member, *Association for Computational Linguistics (ACL)*, 2011-
- Student member, *Association for Computing Machinery (ACM)*, 2013-
- Graduate student member, *IEEE* 2011-
- Student member, *IEEE Signal Processing Society (IEEE SPS)*, 2011-
- Affiliate member, *Speech and Language Processing Technical Committee, IEEE Signal Processing Society*, 2011-
- Member, *SIGdial/SIGSEM/SIGNLL/SIGDAT*, 2011-

Recent Presentations and Invited Talks

1. "Deep Reinforcement Learning for NLP: Classification, Generation, and Reasoning", Peking University, iFlyTek-HIT Lab, ByteDance Inc, Beijing, China, Summer 2018.
2. "Frontiers in Task-Oriented Dialogue Systems: Scalability, Empathy, and Multilinguality", Lenovo AI Research, Beijing, China, Summer 2018.
3. "Deep Knowledge Graph Reasoning", Tsinghua, CASIA, Microsoft Research Asia, CCKS 2018, CIPS Summer School, Beijing and Tianjin, China, Summer 2018.
4. "Deep Reinforcement Learning for NLP", tutorial at ACL 2018 with Jiwei Li and Xiaodong He, Melbourne, Victoria, Australia, July 15, 2018.
5. "Artificial Intelligence: Past, Presence, and Future", Invited Talk at the UC Legislative Roundtable in the CA State Capitol, Sacramento, CA, June 20th, 2018.
6. NAACL 2018 Tutorial on Scalable Knowledge Base Construction and Reasoning, with Xiang Ren and Nanyun Peng (USC), New Orleans, LA, June 1st, 2018.
7. "KBGAN: Adversarial Learning for Negative Sampling", NAACL 2018, New Orleans, LA, June 4th, 2018.

8. "Reinforced Semi-Supervised Learning", Keynote at **Google I/O Extended at Santa Barbara**, Santa Barbara, CA, May 9th, 2018.
9. "Deep Reinforcement Learning for Knowledge Graph Reasoning", at **Facebook**, Menlo Park, CA, Oct 20th, 2017.
10. "Natural Language Processing and Automated Fake News Detection", at **Sonoma State University**, Rohnert Park, CA, Oct 19th, 2017.
11. "Deep Reinforcement Learning for Knowledge Graph Reasoning", at **UCSB PStat Seminar**, Santa Barbara, CA, Oct 11th, 2017.
12. "Deep Reinforcement Learning for Knowledge Graph Reasoning", at **IBM T. J. Watson Research Center**, Yorktown Heights, NY, July 26th, 2017.
13. "Scalable Learning and Reasoning for Large Knowledge Graphs", at **University of Southern California**, Los Angeles, CA, Sept. 25, 2016.
14. "Scalable Learning and Reasoning for Large Knowledge Graphs", at **University of Virginia**, Charlottesville, VA, Apr. 25, 2016.
15. "Scalable Learning and Reasoning for Large Knowledge Graphs", at **Toyota Technological Institute at Chicago**, Chicago, IL, Apr. 13, 2016.
16. "Scalable Learning and Reasoning for Large Knowledge Graphs", at **Northeastern University**, Boston, MA, Apr. 8, 2016.
17. "Scalable Learning and Reasoning for Large Knowledge Graphs", at **University of Rochester**, Rochester, NY, Mar. 31, 2016.
18. "Scalable Learning and Reasoning for Large Knowledge Graphs", at **Rutgers University**, New Brunswick, NJ, Mar. 29, 2016.
19. "Scalable Learning and Reasoning for Large Knowledge Graphs", at **University of Texas, Dallas**, Richardson, TX, Mar. 21, 2016.
20. "Scalable Learning and Reasoning for Large Knowledge Graphs", at **University of California, Santa Barbara**, Santa Barbara, CA, Mar. 16, 2016.
21. "Scalable Learning and Reasoning for Large Knowledge Graphs", at **Pennsylvania State University**, State College, PA, Mar. 2, 2016.
22. "Scalable Learning and Reasoning for Large Knowledge Graphs", at **New York University**, New York, NY, Nov. 11, 2015.
23. "Scalable Learning and Reasoning for Large Knowledge Graphs", at **Columbia University**, New York, NY, Nov. 9, 2015.
24. "Interdisciplinary Approaches to Computational Social Science", at **Academia Sinica**, Taipei, Taiwan (R.O.C.), Oct 29th, 2015.
25. "Scalable Learning and Reasoning for Large Knowledge Graphs", at **Academia Sinica**, Taipei, Taiwan (R.O.C.), Oct 28th., 2015.
26. "Joint Information Extraction and Reasoning: A Scalable Statistical Relational Learning Approach", at **Microsoft Research Asia**, Beijing, China, July 31st, 2015.

27. "Joint Information Extraction and Reasoning: A Scalable Statistical Relational Learning Approach", at **ACL-IJCNLP 2015**, Beijing, China, July 27th, 2015.
28. "A Low-Rank Approximation Approach to Learning Joint Embeddings of News Stories and Images for Timeline Summarization", at **Yahoo! Summer Science Week**, Sunnyvale, CA, July 21th, 2015.
29. "Joint Information Extraction and Reasoning: A Scalable Statistical Relational Learning Approach", at **Yahoo! NLP group**, New York, NY, July 16th, 2015.
30. "I Can Has Cheezburger? A Nonparanormal Approach to Combining Textual and Visual Information for Predicting and Generating Popular Meme Descriptions", at **Yahoo! Labs NYC lunch talk**, New York, NY, June 25th, 2015.
31. "Structure Learning via Parameter Learning", at the 23rd ACM International Conference on Information and Knowledge Management (**CIKM 2014**), Shanghai, China, Nov. 6th, 2014.
32. "Programming with Personalized PageRank: a Locally Groundable First-Order Probabilistic Logic", at the 22nd ACM International Conference on Information and Knowledge Management (**CIKM 2013**), Burlingame, CA, USA, Oct. 30th, 2013.
33. "Programming with Personalized PageRank: a Locally Groundable First-Order Probabilistic Logic", at the 2013 ICML workshop on Inferring: Interactions between Inference and Learning. (**ICML 2013 workshop**), Atlanta, GA, Jun. 20th, 2013.
34. "Crowdsourcing Natural Language Corpora: Methods and Observations", at the 2013 Microsoft TechFest (**TechFest 2013**), Redmond, WA, Mar. 6-7th, 2013.
35. "Crowdsourcing Natural Language Corpora: Methods and Observations", at the 2013 CMU LTI Student Open House poster session, Pittsburgh, PA, Mar. 1st, 2013.
36. "Learning to Recognize Things Unknown: Studies of Out-of-Domain Detection", **Microsoft Research**, Redmond, Jan. 11th, 2013.
37. "Crowdsourcing Natural Language Corpora: Methods and Observations", **Microsoft Online Services Division**, Bellevue, WA, Dec. 11th, 2012.
38. "Structured Natural Language Elicitation via Crowdsourcing: Methods and Observations", at the second Mid-Atlantic Student Colloquium on Speech, Language and Learning (**MASC 2012**), University of Maryland, College Park, Oct. 19th.
39. "Historical Analysis of Legal Opinions with a Sparse Mixed-Effects Latent Variable Model", at the 50th Annual Meeting of the Association for Computational Linguistics (**ACL 2012**), Jeju Island, Korea, July 10th, ACL.
40. "Love ya, jerkface: using Sparse Log-Linear Models to Build Positive (and Impolite) Relationships with Teens", at the 13th annual SIGdial Meeting on Discourse and Dialogue (**SIGDIAL 2012**), Seoul National University, Seoul, Korea, July 5, 2012.
41. "Crowd-sourcing Natural Language Corpora for Time-Efficient Construction of Natural Language Processing Systems", **Microsoft Research**, Redmond, WA, June 29, 2012.
42. "Automatic Intoxication Detection using Accent Identification Approaches", at the 2011 Mid-Atlantic Student Colloquium on Speech, Language and Learning (**MASC**), Baltimore, MD, Sept. 23th, 2011.
43. "Automatic Intoxication Detection using Accent Identification Approaches", at the 2011 CMU LTI Student Research Symposium (**SRS 2011**), Pittsburgh, PA, Sept. 9th, 2011.

44. “Detecting Levels of Interest from Spoken Dialog with Multistream Prediction Feedback and Similarity Based Hierarchical Fusion Learning”, at **SIGDIAL 2011**, Portland, OR., June 18th, 2011.
45. “Improving Spoken Language Understanding with Phonetic Mixture Models”, Spoken Language Processing Group of **Columbia University**, NY, USA, Feb. 14th, 2011.
46. “Automatic Vandalism Detection in Wikipedia”, invited talk at the Spoken Language Processing Group of **Columbia University**, NY, USA, Oct. 26th, 2010.
47. “Got You!: Automatic Vandalism Detection in Wikipedia with Web-based Syntactic-Semantic Modeling”, presented at the 23rd International Conference on Computational Linguistics (**COLING 2010**), Beijing, China, Aug. 27th, 2010.
48. “Automatic Vandalism Detection in Wikipedia”, invited talk at Information Science Institute (**ISI**), CA, USA, July 30th, 2010.
49. “Improving Spoken Language Understanding with Phonetic Mixture Models”, invited talk at Institute for Creative Technology, University of Southern California (**USC ICT**), CA, USA, June 29th, 2010.

Postdocs and PhD Students

- Vivek Kulkarni (Postdoc, 2017-2018, now at Stanford)
- Wenhu Chen (PhD student, M.S. RWTH Aachen, B.S. HUST)
- Jing Qian (PhD student, Chancellor’s Fellow, B.S. Nanjing)
- Xin Wang (PhD student, B.S. Zhejiang)
- Yi-Lin Tuan (PhD student, B.S. NTU)
- Tsu-Jui Fu (PhD student, B.S. NTHU)
- Wanrong Zhu (PhD student, B.S. Peking)
- Jiawei Wu (PhD student, B.S. Tsinghua)
- Yijun Xiao (PhD student, M.S. NYU, UC Davis, B.S. Tsinghua)
- Wenhan Xiong (PhD student, B.S. USTC)
- Sharon Levy (PhD student, B.S. UCSB)
- Hong Wang (PhD student, Chancellor’s Fellow, B.S. Nanjing)
- Qingyu Yin (Visiting PhD student 2017-2018, HIT)
- Shaolei Wang (Visiting PhD student 2018-2019, HIT)
- Pengda Qin (Visiting PhD student, BUPT)

PhD and MS Committees

- Xin Wang (Co-Chair, MAE, PhD Thesis Proposal, and Defense Committee)
- Pankaj Gupta (PhD Thesis Committee, University of Munich, Germany)
- Richard Jiang (MAE Committee)
- Yi Ding (MAE Committee)
- Liu Liu (MAE Committee)
- Keqian Li (MAE, PhD Thesis Proposal, and Defense Committee)
- Xinyi Zhang (MAE, PhD Thesis Proposal, and Defense Committee)
- Shiliang Tang (MAE, PhD Thesis Proposal, and Defense Committee)
- Izzeddin Gur (MAE, PhD Thesis Proposal, and Defense Committee)
- Semih Yavuz (MAE, PhD Thesis Proposal, and Defense Committee)
- Bay-Yuan Hsu (MAE, PhD Thesis Proposal, and Defense Committee)
- Wei-Tsung Lin (MAE Committee)
- Brandon Huynh (MAE Committee)
- Maohua Zhu (ECE PhD Thesis Committee)
- Guillaume Bellegarda (ECE PhD Thesis Committee)
- Steve Bako (ECE Thesis Proposal Committee)
- Shuangchen Li (ECE Qualify Exam and Defense)
- Christian Bueno (Math Doctoral Candidacy Exam)
- Nidhi Hiremath (Chair, MS Committee)
- Vivek Pradhan (Chair, MS Committee)
- Shayan Sadigh (MS Committee)
- Zenghui Yan (MS Committee)
- Sharath Rao (MS Committee)
- Dong-Anh Nguyen (MS Committee)

Undergraduate & Masters Student Mentoring

- Mahnaz Koupaee (UCSB CS MS, 2017-2018)
- Sharon Levy (UCSB BS/MS, 2017-2018)
- Ashwini Patil (UCSB MS, 2018)
- Chani Jindal (UCSB MS, 2017)
- Sai Nikhil Maram (UCSB MS, 2018)
- Vivek Pradhan (UCSB MS, 2018-2019)
- Conner Vercellino (UCSB CCS, 2017)
- Brian Lim (UCSB CS, 2018)
- Lawrence Lim (UCSB CS, 2018, co-advised with Divy Agrawal)
- Yuhao Zhang (UCSB CS, 2017-2018)
- Deren Lei (UCSB CS, 2017-2019)
- Alexander Sniff (UCSB Linguistics, 2017-2019)
- Samantha Lee (UCSB Statistics, 2017)
- Yuan Yao (UCSB Computer Science, 2017)
- Thien Hoang (UCSB College of Creative Studies, 2016-2017)
- Daniel Spokoyny (UCSB CCS, 2016-now, NSF Graduate Fellow, Chancellor's Award in Undergraduate Research, going to CMU for PhD)
- Darren Huang (National Taiwan University, 2016-17)
- Tyler Vuong (UCSB Electrical Engineering, 2016-17, going to CMU for PhD)
- Ke Ni (UCSB Computer Science, 2016-now, CRA Undergraduate Outstanding Undergraduate Researcher Award Honorable Mention, 2018)
- Shao-Yi Zhang (UCSB CS & Stats, 2016-17)
- Tristan Hull (Cornell, 2014)
- Chao-Yuan Wu (MLD, CMU, 2014, now at UT-Austin)
- Sneha Chaudhari (LTI, CMU, 2014-2015)
- Adele Chase (Columbia University, 2010)

Undergraduate & Highschool Interns

- Sahil Jain (2018 Summer)
- Akul Gupta (Evergreen Valley High School, San Jose, 2017 Summer, now UCSC)
- Xianda Zhou (Tsinghua, 2017 Summer, now UT-Austin)
- Yuteng Ma (Tsinghua, 2017 Summer)
- Xuanyue Yang (BUPT, 2017 Summer, now CMU)
- Fengyu Deng (SJTU, 2017 Summer, now UT-Austin)
- Zikun Lin (Tsinghua, 2017 Summer, now Columbia)
- Shiyi Han (Beihang, 2017 Summer, now Brown)
- Liwei Cai (Tsinghua, 2017 Summer, now CMU)
- Zheyu Wang (Tsinghua, 2017 Summer, now USC)
- Fangjun Zhang (HKU, 2017 Summer, now NYU)

Teaching Experience

- NAACL 2019 Tutorial on Deep Adversarial Learning for NLP.
- ACL 2018 Tutorial on Deep Reinforcement Learning for NLP.
- NAACL 2018 Tutorial on Knowledge Graph Reasoning.
- UC Santa Barbara, Spring 2017
Instructor, CS 292F, *Deep Learning for Natural Language Processing*.
- UC Santa Barbara, Winter 2017
Instructor, CS 190I, *Introduction to Natural Language Processing*.
- The 15th Annual Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies, San Diego, USA Summer 2016
Tutorial Speaker, NAACL HLT 2016, *Scalable Statistical Relational Learning for NLP*.
- International Joint Conference on Artificial Intelligence, New York, USA Summer 2016
Tutorial Speaker, IJCAI 2016, *Scalable Probabilistic Logics*.
- Peking University, China, Summer 2015
Instructor, CIPS Summer School, *Information Extraction*, 250 students.
- Carnegie Mellon University, USA, Spring 2014
Head Teaching Assistant, *Machine Learning for Large Datasets*, 150 students.
- Carnegie Mellon University, USA, Fall 2013
Head Teaching Assistant, *Machine Learning*, 60 students.
- Shenzhen University, China, Spring 2008
Teaching Assistant, *Programming Language in Visual Basics*, 150 students.

Media Coverage and Invited Stories

- An Algorithm That Can Spot When People Lie to the Police, Emiliano Rodriguez Mega, **Scientific American**, Feb 1, 2019.
- Artificial Intelligence: What's Next?, Tom Lydon, **NASDAQ.com**, Sept 25, 2018.
- What's Next: How to Spot an ICO Scam Without Really Trying, **Law.com**, Mar. 20, 2018.
- Researchers tap AI in the fight against ICO scams, Tristan Greene, **The Next Web**, Mar. 13, 2018.
- How to combat fake news and disinformation, Darrell M. West, **The Brookings Institution**, Dec. 18, 2017.
- 'Siri, why have you fallen behind other digital assistants?', Tom Simonite, **Wired**, Oct. 5, 2017.
- The iPhone, Siri and Conversation, Sonia Fernandez, **The UC Santa Barbara Current**, July 7, 2017.
- Teaching Machines to Detect Fake News Is Really Hard, Daniel Oberhaus, **VICE Motherboard**, May 7th, 2017.
- Google Can Finally Understand Your Drunk Texts, John Pavlus, **Fast Company**, Apr. 21st, 2017.
- Machine Learning: The Present and Future, Yehua Zhu, **Science & Technology Review**, 34(7), Apr. 15th, 2016, China Association for Science and Technology.
- AlphaGo Beats Lee Sedol, Scientists: Not Surprising, Shiqi Zhu, **IFENG.com**, Mar. 9th, 2016.
- 'Software' con sentido del humor, o cómo crear memes automáticos (y graciosos), José Manuel Blanco, **El Confidencial**, Oct. 20, 2015.
- Can a Computer Make a Meme?, Gretchen McCulloch, **Mental Floss**, Sept. 22, 2015.
- The Theory of "Technological Singularity": A Scientific Theory of Artificial Intelligence? Or Junk Science?, William Wang, **Communications of the China Computer Federation**, June Issue, 2015.
- Proof: the Science of Booze, Adams Roger, **Mariner Books**, June, 2014. Best Science Book of 2014 by Amazon, Wired, the Guardian, and NBC, Winner of the 2014 Gourmand Award for Best Spirits Book in the United States.
- Big Data and Machine Learning: a Retrospective of ICML 2013, **Programmer Magazine**, Sept. issue, 2013.
- Acquiring Corpora using Crowdsourcing, Matt Marge, **IEEE SLTC Newsletter**, May, 2013.
- Detecting Intoxication in Speech, Matt Marge, **IEEE SLTC Newsletter**, Oct., 2011.

Public Outreach

- Chandler Supple (Thousand Oaks High School), advised research paper for honors class.
- Antonio Caceres (Sacred Heart Preparatory), Independent Study Advisor.
- Host Sahil Jain (The Harker School in California) for UCSB Summer Research Mentorship Program, Summer 2018.
- Host a visit for McNair Scholars Program, 04/20/2018.

- Host a visit from Laguna Blanca School, Santa Barbara, CA 03/08/2018.
- Hosted Akul Gupta (Evergreen Valley High School, San Jose, 2017 Summer, Now B.S. UCSC) for a research internship, 07/2017.
- Invited talk at the Santa Barbara Humanist Society, 2017.
- NLP/ML/speech microblog on Weibo: 111,000+ followers, and 4,000,000+ monthly views (as of Apr. 2018).

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