

# WENHU CHEN

A Natural Language and Machine Learning Enthusiast

## ABOUT ME

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I'm currently a Ph.D student in Computer Science Department of University of California, Santa Barbara supervised by William Wang and Xifeng Yan. My research interests lie in natural language processing and deep learning. Primarily, I work on natural language processing under structured data, like knowledge graph reasoning [11,5], natural language language generation [4], table-based fact verification [1]. Besides, I'm also interested in variational inference [7,11], multi-modality problems like visual captioning/question answering [10,13], and machine translation [9,12,14], etc. My research goal is to bring together free-form linguistic reasoning and structured symbolic reasoning to build the new generation AI system.

## CONFERENCE PUBLICATIONS

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**[1] TabFact: A Large-scale Dataset for Table-based Fact Verification**

Wenhu Chen, Hongmin Wang, Jianshu Chen, Yunkai Zhang, Hong Wang, Shiyang Li, Xiyu Zhou and William Yang Wang. Technical Report, 2019

**[2] Enhancing the Locality and Breaking the Memory Bottleneck of Transformer on Time Series Forecasting**

Shiyang Li, Xiaoyong Jin, Yao Xuan, Xiyu Zhou, Wenhu Chen, Yu-Xiang Wang, Xifeng Yan. Proceedings of NeurIPS 2019, Vancouver, Canada (Poster)

**[3] Interpreting and Improving Deep Neural SLU Models via Vocabulary Importance**

Yilin Shen, Wenhu Chen, Hongxia Jin. Proceedings of INTERSPEECH 2019, Graz, Austria (Oral Presentation)

**[4] Semantically Conditioned Dialog Response Generation via Hierarchical Disentangled Self-Attention**

Wenhu Chen, Jianshu Chen, Pengda Qin, Xifeng Yan and William Yang Wang. Proceedings of ACL 2019, Florence, Italy (Long Poster)

**[5] Global Textual Relation Embedding for Relational Understanding**

Zhiyu Chen, Hanwen Zha, Honglei Liu, Wenhu Chen, Xifeng Yan and Yu Su. Proceedings of ACL 2019, Florence, Italy (Short Poster)

**[6] Mining Algorithm Roadmap in Scientific Publications**

Hanwen Zha, Wenhu Chen, Keqian Li and Xifeng Yan. Proceedings of KDD 2019, Alaska, USA (Research Track, Oral)

**[7] How Large A Vocabulary Does Text Classification Need? A Variational Approach on Vocabulary Selection**

Wenhu Chen, Yu Su, Yilin Shen, Zhiyu Chen, Xifeng Yan and William Yang Wang. Proceedings of NAACL 2019, Minneapolis, USA (Long Oral)

**[8] XL-NBT: A Cross-lingual Neural Belief Tracking Framework**

Wenhu Chen, Jianshu Chen, Yu Su, Xin Wang, Dong Yu, Xifeng Yan and William Yang Wang. Proceedings of EMNLP 2018, Brussel, Belgium (Long Paper)

**[9] Triangular Architecture for Rare Language Translation**

Shuo Ren, Wenhu Chen, Shujie Liu, Mu Li, Ming Zhou and Shuai Ma. Proceedings of ACL 2018, Melbourne, Australia (Long Oral)

**[10] No Metrics Are Perfect: Adversarial Reward Learning for Visual Storytelling**

Wenhu Chen\*, Xin Wang\*, Yuan-Fang Wang and William Yang Wang. Proceedings of ACL 2018, Melbourne, Australia (Long Oral)

**[11] Variational Knowledge Graph Reasoning**

Wenhu Chen, Wenhan Xiong, William Yang Wang, Xifeng Yan. Proceedings of NAACL 2018, New Orleans, CA (Long Oral)

**[12] Generative Bridging Network in Neural Sequence Prediction**

Wenhu Chen, Guanlin Li, Shuo Ren, Shujie Liu, Zhirui Zhang, Mu Li, Ming Zhou. Proceedings of NAACL 2018, New Orleans, CA (Long Poster)

**[13] Video Captioning via Hierarchical Reinforcement Learning**

Xin Wang, Wenhu Chen, Jiawei Wu, Yuan-fang Wang, William Yang Wang. Proceedings of CVPR 2018, Salt Lake City, UTAH (Poster)

**[14] Guided alignment training for topic-aware neural machine translation**

Wenhu Chen, Evgeny Matusov, Shahram Khadivi, JT Peter. AMTA 2016, Austin, TX (Poster)

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**SERVICE**

2018: Program Committee in Socal-NLP, EMNLP

2019: Program Committee in AAAI, NAACL, ICML, ACL, NeurIPS, TACL, EMNLP

2020: Program Committee in AAAI

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**EDUCATION**

**University of California, Santa Barbara**

*Sep 2017-Now*

Ph.D in Computer Science

Advisor: Xifeng Yan and William Wang

Overall GPA: 3.95/4.0

**ETH Zurich, Switzerland**

*June 2016-Dec 2016*

Visiting in Computer Science

Overall GPA: 6.0/6.0

**RWTH Aachen University, Germany**

*Sep 2014-Dec 2016*

M.S. in Electronics Engineering

Overall GPA: 1.4/1.0

**Huazhong University of Science and Technology, China**

*Sep 2010-June 2014*

M.S. in Electronics Engineering

Overall GPA: 86/100

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**EXPERIENCE**

**Microsoft AI & Cloud**

June 2019 - Sep 2019

*Research Intern*

*Bellevue, USA*

- Designed modular network for visual question answering

**Samsung Research America**

June 2018 - Sep 2018

*Research Intern*

*Mountain View, USA*

- Designed model compression algorithm for NLP tasks (NAACL 2019, INTERSPEECH 2019)

**Microsoft Research Asia**

Feb 2017 - Aug 2017

*Research Intern*

*Beijing, China*

- Designed data-augmentation algorithm for sequence learning (NAACL 2018, ACL 2018)

**eBay Research**

December 2015 - June 2016

*Research Intern*

*Aachen, Germany*

- Investigated the usage of statistical alignment in neural machine translation (AMTA 2018)

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**AWARD**

**Tencent AI Gift Award:** Awarded the Tencent AI Gift Fund for PhD sponsorship.

**IDEA Research Grant:** Awarded IDEA research scholarship for exchange program in ETH.

**German National Scholarship:** Awarded a one-year scholarship sponsored by Robert Bosch Inc.

**China Scholarship Committee Scholarship:** Awarded full scholarship from CSC for a one-year exchange program in Germany.

**MCM Finalist Award:** Ranked top 0.5% in The Mathematical Contest in Modeling in 2013.