

# WENHU CHEN

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## 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 aim to design natural language models to better ground on open-world data like tables [21,20,18,15,11], knowledge graphs [22,17,14,4], images [19,5], and videos [16,2]. On one hand, I'm interested in grounding human language on diversified open-world data to perform tasks like question answering or fact-checking. On the other hand, I'm interested in converting open-world data to natural language form like data-to-text generation and multi-modal captioning. Besides, I'm also interested in more deep variational models [12,8,4] and multi-lingual learning [7,6,3,1]. My research goal is to build a universal system to use human language to interact with diverse open-world data.

## EDUCATION

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**University of California, Santa Barbara** *Sep 2017-Now*  
Ph.D in Computer Science  
Advisor: William (Yang) Wang and Xifeng Yan

**ETH Zurich, Switzerland** *June 2016-Dec 2016*  
Visiting in Computer Science  
Advisor: Aurelien Lucchi

**RWTH Aachen University, Germany** *Sep 2014-Dec 2016*  
M.Sc. in Electronics Engineering

**Huazhong University of Science and Technology, China** *Sep 2010-June 2014*  
B.Sc. in Electronics Engineering

## PREVIOUS EMPLOYMENT

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- Google Research** *Sep 2020 - Dec 2020*  
*Student Researcher* *Remote, USA*  
· Advisors: Ming-Wei Chang, Eva Schlinger, William Cohen
- Google Research** *June 2020 - Sep 2020*  
*Research Intern* *Pittsburgh, USA*  
· Advisors: Ming-Wei Chang, Eva Schlinger, William Cohen
- Microsoft AI & Cloud** *June 2019 - Sep 2019*  
*Research Intern* *Bellevue, USA*  
· Advisors: Zhe Gan, Yu Cheng, Ming-Wei Chang
- Samsung Research America** *June 2018 - Sep 2018*  
*Research Intern* *Mountain View, USA*  
· Advisors: Yi-Lin Shen, Hongxia Jin

Microsoft Research Asia

Research Intern

Feb 2017 - Aug 2017

Beijing, China

· Advisors: Shujie Liu, Mu Li

eBay Research

Research Intern

December 2015 - June 2016

Aachen, Germany

· Advisors: Matusov Evgency, Shahram Khadivi

## PEER-REVIEWED PUBLICATIONS

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**[22] KGPT: Knowledge-Grounded Pre-Training for Data-to-Text Generation**

Wenhu Chen, Yu Su, Xifeng Yan, William Yang Wang. Proceedings of EMNLP 2020

**[21] HybridQA: A Dataset of Multi-Hop Question Answering over Tabular and Textual Data**

Wenhu Chen, Hanwen Zha, Zhiyu Chen, Wenhan Xiong, Hong Wang, William Wang. Proceedings of EMNLP 2020 (Findings)

**[20] Logic2Text: High-Fidelity Natural Language Generation from Logical Forms**

Zhiyu Chen, Wenhu Chen, Hanwen Zha, Xiyu Zhou, Yunkai Zhang, Sairam Sundaresan, William Yang Wang. Proceedings of EMNLP 2020 (Findings)

**[19] Meta Module Network for Compositional Visual Reasoning**

Wenhu Chen, Zhe Gan, Linjie Li, Yu Cheng, William Wang, Jingjing Liu. Proceedings of WACV 2021, Hawaii, USA (Oral)

**[18] Logical Natural Language Generation from Open-Domain Tables**

Wenhu Chen, Jianshu Chen, Yu Su, Zhiyu Chen and William Yang Wang. Proceedings of ACL 2020, Seattle, USA (Long)

**[17] Few-shot NLG with Pre-trained Language Model**

Zhiyu Chen, Harini Eavani, Wenhu Chen, Yinyin Liu and William Yang Wang. Proceedings of ACL 2020, Seattle, USA (Short)

**[16] VIOLIN: A Large-Scale Dataset for Video-and-Language Inference**

Jingzhou Liu, Wenhu Chen, Yu Cheng, Zhe Gan, Licheng Yu, Yiming Yang, Jingjing Liu. Proceedings of CVPR 2020, Seattle, USA (Poster)

**[15] 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. Proceedings of ICLR 2020, Addis Ababa, Ethiopia (Poster)

**[14] Generative Adversarial Zero-Shot Relational Learning for Knowledge Graphs**

Pengda Qin, Xin Wang, Wenhu Chen, Chunyun Zhang, Weiran Xu, William Yang Wang. Proceedings of AAAI 2020, New York, USA (Oral)

**[13] 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)

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

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

**[11] 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)

**[10] 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)

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

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

**[8] 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)

**[7] 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)

**[6] 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)

**[5] 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)

**[4] Variational Knowledge Graph Reasoning**

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

**[3] 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, UAS (Long Poster)

**[2] 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, USA (Poster)

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

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

## TECHNICAL REPORTS & PATENTS

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**Unsupervised Multi-hop Question Answering by Question Generation**

Liangming Pan, Wenhu Chen, Wenhan Xiong, Min-Yen Kan, William Yang Wang

**Open Question Answering over Tables and Text**

Wenhu Chen, Ming-Wei Chang, Eva Schlinger, William Yang Wang, William W. Cohen

**Using meta-information in neural machine translation**

Evgeny Matusov, Wenhu Chen, Shahram Khadivi

## SERVICE

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2018: Program Committee in Social-NLP, EMNLP

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

2020: Program Committee in AAAI, ACL, ICML, EMNLP, NeurIPS

2021: Program Committee in ICLR, NAACL

## AWARD

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**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 exchange program in Germany.

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

## TEACHING

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**Guest Lecturer, UCSB, 2018 Spring :** CS 291K Advanced Deep Learning

**Teaching Assistant, UCSB, 2020 Spring:** CS 165B Machine Learning

## MENTORING

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- Zhiyu Chen (PhD student, UCSB)
- Xinyi Wang (PhD student, UCSB)
- Yi-Lin Tuan (PhD student, UCSB)
- Liangming Pan (PhD student, NUS)