# WENHU CHEN

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#### ABOUT ME

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], semantically-controlled language generation [4], table-based fact verification [1]. Besides, I'm also interested in variational inference [7,11], multi-modality captioning and question answering [10,13], natural/spoken language understanding [3,8], 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

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

Wenhu Chen, Hongmin Wang, Jianshu Chen, Yunkai Zhang, Hong Wang, Shiyang Li, Xiyou 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, Xiyou Zhou, <u>Wenhu Chen</u>, 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

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

# [13] Video Captioning via Hierarchical Reinforcement Learning

Xin Wang, <u>Wenhu Chen</u>, 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)

### **SERVICE**

2018: Program Committee in Socal-NLP, EMNLP

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

2020: Program Committee in AAAI

### **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

#### **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)

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.