

HAORAN ZHANG

Aspiring Researcher Who Digs Into Data and Teaches Machines

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🔗 github.com/WindChimeRan

EDUCATION

University of Illinois at Urbana-Champaign (UIUC)

Master of Science, Information Management

📅 Aug 2019 – Present

advisor: Dr. Heng Ji

Changsha University of Science & Technology (CSUST)

Bachelor of Science, Computer Science

📅 Jul 2014 – Jun 2018

advisor: Dr. Daojian Zeng

PUBLICATIONS

(* refers to equal contributions)

NAACL'21
Demo

COVID-19 Literature Knowledge Graph Construction and Drug Repurposing Report Generation. Qingyun Wang, Manling Li, Xuan Wang, Nikolaus Parulian, Guangxing Han, Jiawei Ma, Jingxuan Tu, Ying Lin, Haoran Zhang, Weili Liu, Aabhas Chauhan, Yingjun Guan, Bangzheng Li, Ruisong Li, Xiangchen Song, Heng Ji, Jiawei Han, Shih-Fu Chang, James Pustejovsky, David Liem, Ahmed Elsayed, Martha Palmer, Jasmine Rah, Cynthia Schneider, Boyan Onyshkevych. Retrieved from [here](#).

EMNLP'20-
Findings

Minimize Exposure Bias of Seq2Seq Models in Joint Entity and Relation Extraction. Haoran Zhang*, Qianying Liu*, Aysa Xuemo Fan, Heng Ji, Daojian Zeng, Fei Cheng, Daisuke Kawahara and Sadao Kurohashi. Retrieved from [here](#).

AAAI'20

CopyMTL: Copy Mechanism for Joint Extraction of Entities and Relations with Multi-Task Learning. Daojian Zeng*, Haoran Zhang*, Qianying Liu. Retrieved from [here](#).

EXPERIENCE

Attribution Verification of News Articles

Team Member, Researcher @ BLENDER LAB

📅 Jan 2021 - Mar 2021

- Verified whether or not the news article is from the purported source.
- Extracted features from both news text and news images.
- Integrated my part to the team repository via docker.

COVID-19 Knowledge Graph

Team Member, Researcher @ BLENDER LAB

📅 Jun 2020 - Sep 2020

- Built COVID-KG by information extraction.
- Generated drug repurposing report based on COVID-KG automatically.
- Released the KG and visualization tools to help medical research.

Sequence-to-Unordered-Multi-Tree for Joint Extraction of Relations and Entities

Team Leader, Researcher @ BLENDER LAB

📅 Nov 2019 - Mar 2020

- Formulated the output sequence to unordered-multi-tree structure to minimize the model bias of the Seq2Seq model in relation extraction.
- Designed AB-Test to disentangle model bias from data bias.
- Implemented a toolkit containing [5 Models \times 2 Datasets] to be open-sourced.

Sequence-to-Sequence for Joint Extraction of Relations and Entities

Team Leader, Researcher @ CSUST AI lab

📅 Mar 2019 - Seq 2019

- Figured out a linear algebra bug causing underfitting of training set in an ACL2018 paper.
- Based on theoretical analysis, added only one more non-linear layer to fix the bug.
- Yielded 14 and 31 (F1) absolute improvement over baseline on NYT and WebNLG dataset respectively.

Controlled Sequence-to-Sequence for Paraphrase Generation

Team Leader, Researcher @ CSUST AI lab

📅 May 2018 - Nov 2018

- Using keywords and the source sentence to generate controlled paraphrase.
- generating diverse paraphrases with respect to different keyword sequences.

SKILLS

Programming	Python, Haskell, C++.
Writing	LaTeX, Markdown, HTML.
Data	Data cleaning, data exploration, data visualization.
AI	Deep learning, natural language processing, computer vision.

COMMUNITY

- Gained 360 stars for open-sourced projects on GitHub.
- Co-founded the first machine learning lab in CSUST.
- Led a session in NLP seminar at iSchool, UIUC.

AWARDS

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| • Best Thesis Award, CSUST | 📅 Jun 2018 |
| • Dean's Scholarship for 2015-2017 Academic Years, CSUST | 📅 2015 - 2017 |
| • College Scientific Research Reward, CSUST | 📅 Apr 2016 |
| • Scholarship for Academic Competition Excellence, CSUST | 📅 Sep 2015 |