

Weiqi Wang (Mighty)

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EDUCATION

The Hong Kong University of Science and Technology Kowloon, Hong Kong SAR, China
Bachelor in Computer Science and Mathematics (Double Major) CGA: 3.86/4.3 Sep. 2018 – Now
Beijing No.8 Middle School Beijing, China
High School's Diploma in Science Rank: 5/306 Sep. 2015 – Jun. 2018

RESEARCH EXPERIENCE

[EMNLP2021] Benchmarking CKGP with evaluation dataset Jan. 2021 – Sep. 2021
Supervised by Prof. Yangqiu Song HKUST, Hong Kong SAR, China

- Preprocess eventuality KG ASER, FrameNet, Knowlywood, extract eventualities from CSKB Glucose. Align CSKB to ASERs by defining specific matching rules.
- Improve the proposed *KGBertSage* model structure and increased the performance of *BertSage* model.

[WWW2021] DISCOS Sep. 2020 – Dec. 2020
Supervised by Prof. Yangqiu Song HKUST, Hong Kong SAR, China

- Reproduce all the baseline models. Analyze the knowledge generated by COMET and propose the defects of COMET model, such as low in novelty, redundant knowledge.
- Improve COMET's beam search logic to make it comply with the classical beam search settings.
- All the annotations by using Amazon Turkur to evaluate the quality of our generated knowledge. Report statistics and help write the paper.

[JCLEPRO] Data-driven Assessment of Air Conditioner Efficiency Jun. 2020 – Jan. 2021
Supervised by Prof. Zhongming Lu HKUST, Hong Kong SAR, China

- Preprocess over one million data and integrate data of different categories from multiple sensors.
- Implement multiple machine learning algorithms to train the models for each separate room. Algorithms ranges from the basic kernel regression such as SVM to deep learning. The final choice is XGBoost by Tianqi Chen.
- Use Shapley Additive Explanation to explain the models and analyze the impact of all the variables to the regression result.

PUBLICATIONS

Benchmarking Commonsense Knowledge Base Population with an Effective Evaluation Dataset
Tianqing Fang, Weiqi Wang*, Sehyun Choi, Shibo Hao, Hongming Zhang, Yangqiu Song, Bin He*

- Published in the Proceedings of **The 2021 Conference on Empirical Methods in Natural Language Processing (EMNLP2021)** (Main Conference)
- [Link to the paper](#) | [Link to the code](#)

DISCOS: Bridging the Gap between Discourse Knowledge and Commonsense Knowledge
Tianqing Fang, Hongming Zhang, Weiqi Wang, Yangqiu Song, Bin He

- Published in the Proceedings of **The Web Conference, 2021 (WWW2021)** (357/1736 = 20.56%)
- [Link to the paper](#) | [Link to the code](#)

Data-driven Smart Assessment of Room Air Conditioner Efficiency for Saving Energy
Weiqi Wang, Zixuan Zhou*, Zhongming Lu*

- Under review at the **Journal of Cleaner Production**
- ~~Link to the paper~~ (not available yet) | [Link to the code](#)

SKILLS

Languages: English (Advanced), Mandarin (Native), Cantonese (Beginner)
Programming Languages: Python (Advanced), C++ java (Proficient), HTML5 JavaScript (Basic)
Frameworks: PyTorch, Tensorflow, Keras, Scikit-learn, Amazon Mechanical Turkur
Libraries: pandas, NumPy, Matplotlib, seaborn, Spacy

AWARDS

Dean's List for the School of Engineering in Fall 2018, Fall 2019, Fall 2020
University's Scholarship Scheme for Continuing Undergraduate Students in 2019-2020, 2020-2021