Email: 1874240442@qq.com Tel: (+86)15313262230 or (+852)54837404 WeChat: mightyweaver GitHub: MighTy-Weaver

Weiqi, Wang 王伟琪 Mighty

2000/08 UG-Year3

Last Updated: 2021/2/25

1. Education

- *Sep. 2018 – Now* **The Hong Kong University of Science and Technology** (CGA:**3.895**/4.300)
  - First Major: **Bachelor's Degree in Computer Science** (CGA: **3.900**/4.300)
  - Second Major: **Bachelor's Degree in Mathematics** (CGA: **3.986**/4.300)
  - Self-Learning: Programming with Python @Coursera, CS224N, CS231N @Stanford University Website
- *Sep. 2015 – Jun. 2018* ***The Beijing No.8 Middle School*** (Rank: **5**/306)
  - High School's Diploma in Science

2. Research Experience

- **Commonsense Knowledge Base Population**
  (Undergraduate Research Assistant)

  (Supervisor: Prof. Yangqiu Song, HKUST, Jan. 2021 – May. 2021)
  - We aim to populating the current commonsense knowledge bases including ATOMIC, ConceptNet, Probase, Glucose with ASER to generate a unified knowledge base under a consistent schema.
  - Details of this project will be made public in April/May 2021 once submitted to Arxiv.
  - To be submitted to EMNLP2021.

- **DISCOS: Bridging the Gap between Discourse Knowledge and Commonsense Knowledge**
  (Undergraduate Research Assistant)

  (Supervisor: Prof. Yangqiu Song, HKUST, Sep. 2020 – Dec. 2020)
  - We propose an alternative commonsense knowledge acquisition framework **DISCOS** (from DIScourse to COmmonSense), which automatically mines expensive complex commonsense knowledge from more affordable linguistic knowledge resources.
  - Experiments demonstrate that we can successfully convert discourse knowledge over eventualities from ASER, a large-scale discourse knowledge graph, into inferential if-then commonsense knowledge defined in ATOMIC without any additional annotation effort.
  - Further study suggests that DISCOS significantly outperforms previous supervised approaches in terms of novelty and diversity with comparable quality.

- **Data-driven Smart Assessment of Room Air Conditioner Efficiency for Saving Energy**
  (Undergraduate Research Assistant)

  (Supervisor: Prof. Zhongming Lu, HKUST, Jun. 2020 – Jan. 2021)
  - We present a machine learning approach to identify non-inverter window air conditioners with low efficiency using climate data and smart meter data from the university student hall rooms.
  - Our result shows that the accuracy of XGBoost is 50~70% in estimating the hourly electricity consumption within a 10% error deviation range from the actual data.
  - We conclude that the AC is highly efficient if the predicted hourly electricity consumption increases as the outdoor temperature rises. In contrast, the AC efficiency is rated low-efficiency if the change of

outdoor temperature does not affect the prediction of the hourly electricity consumption. This conclusion is further verified by the AC replacement record.

3. Publications

- **Commonsense Knowledge Base Population**
  To be submitted to Empirical Methods of Natural Language Processing, 2021 (EMNLP2021)
- **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 in **Applied Energy (APEN)** (IF=8.848)
  Link to the code

4. Campus Experience

- **Subcommittee of Mainland Scholar and Students Society Undergraduate (MSSSUG)**
  (Sep. 2018 – Dec. 2018)
  * Helped making the annual plan of the entire society.
  * Hosted several society functions.
- **Student Teaching Helper in COMP1022P (CSE Department)**
  (Sep. 2019 – Nov. 2019)
  * Grade student's lab work and answer their questions.
- **School of Engineering's Representative in Admission Interview (School of Engineering)**
  (Jan. 2020, Jul. 2020, Jan. 2021)
  * Share my experience in HKUST as the representative of School of Engineering and answer their questions on admissions and studying & living in HKUST.

5. Language and Skills

- **Language**: English (advanced), Mandarin (native), Cantonese (beginner)
- **Skills:**
  * **Advanced:** Python**, Proficient:** C++, Java**, Basic:** HTML5, JavaScript
  * **Proficient** with PyTorch, TensorFlow, Keras**,** Scikit-Learn
  * **Currently working on Knowledge graphs and GNNs.**

6. Scholarships and Honors

- **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 and 2020-2021

7. Contact Me!

- This email: **1874240442@qq.com** will be active all the time!
- You are also welcomed to visit my personal webpage **https://mighty-weaver.github.io/**!
- My current address is *Room3007, Cheng Yu Tung Building, HKUST, Sai Kung, Hong Kong SAR, China*