Zesong Wang

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Education

Huazhong University of Science and Technology, Wuhan, China　　　　2022 Sep – Now

MS in Computer Science

Hubei University, Wuhan, China　　　　2018 Sep – 2022 Jun

BS in Computer Science, **GPA 4.0 / 4.0**, Ranked **1st** out of 71 in my major.

Related course and grades (the full mark is 100):

Advanced math (95), Data structures (95), Algorithm design and analysis (91), Computer Architecture (94)

Operating systems (93), Computer network (90), Advanced language programming (96)

Professional focus/background:

Knowledge Engineering, Natural Language Processing, Machine Learning

Honors and Awards

- **The National Scholarship**
- Awarded as "**Top 10 Outstanding Student** at Hubei University" upon graduation
- Mathematical Contest in Modeling (MCM)　　*Team leader*　　Meritorious Winner(Top 8%)
- China Collegiate Computing Contest　　*Team leader*　　First Prize
- Contemporary Undergraduate Mathematical Contest in Modeling (CUMCM)　　First Prize
- National Professional Algorithm Design Contest "Lan Qiao Cup"　　Second Prize

Selected Publications

1. ***Zesong Wang**, Kui Xiao*, Zeqing Qin,* et al. Extracting Prerequisites between Concepts from Online Course Introduction[C]//The 33rd International Conference on Software Engineering & Knowledge Engineering. 2021: 375-380. SEKE (Acceptance rate: 23.5%, CORE: B, QUALIS: B1, CCF: C) https://ksiresearch.org/seke/seke21paper/paper172.pdf

2. *Kui Xiao, Youheng Bai, and **Zesong Wang***(Corresponding author).* "Extracting Prerequisite Relations among Concepts From the Course Descriptions (SEKEEO-RN)." International Journal of Software Engineering and Knowledge Engineering 32.04 (2022): 503-523. IJSEKE (Impact Factor : 1.47) https://www.worldscientific.com/doi/abs/10.1142/S0218194022400034?journalCode=ijseke

3. *Cheng Hu, Kui Xiao*, **Zesong Wang**,* et al. Extracting prerequisite relations among wikipedia concepts using the clickstream data[C]//International Conference on Knowledge Science, Engineering and Management. Springer, Cham, 2021: 13-26. KSEM (CORE: B, QUALIS: B2, CCF: C) https://link.springer.com/chapter/10.1007/978-3-030-82136-4_2

4. *Zeqing Qin, Zhiwei Ye*, **Zesong Wang**,* et al. A Multimodal Biomedical Image Registration Method Based on an Improved Genetic Algorithm Inspired by Hybrid Breeding[C]//2021 IEEE International Conference on Systems, Man, and Cybernetics (SMC). IEEE, 2021: 1272-1279. SMC (QUALIS: B2, CCF: C) https://ieeexplore.ieee.org/abstract/document/9658798/

Professional Experiences

1) ***Extracting Prerequisite between Concepts Using Network Education Resources***   2020 July – 2022 Jun

Supported by the National Natural Science Foundation of China (Grant No. 61977021)

Person in charge (The only undergraduate student in the research group)

- Completed code reproduction of related research; Designed a novel concept-prerequisite extracting method using Wikipedia and course introduction.
- The accuracy of this model outperforms existing methods. Two **papers were published** in well-known journals in the field, respectively as the first author and the corresponding author.

2) ***Community resource integration application during the COVID-19***   2020 Jan – 2021 April

Software Innovation Research Center of Hubei University, Wuhan, China

Systems architect & Front-end developer

- Aimed at difficulties in community management during COVID-19.
- Provided a developed an application that can be embedded in WeChat for community residents to assist each other.
- The project **won the first prize** in the China Collegiate Computing Contest due to its high economic value and practicality and was **approved for a software copyright.**

3) ***Image Registration Method Based on Evolutionary Computation***   2020 Aug – 2022 Jan

Supported by the National Natural Science Foundation of China (Grant No.61772180)

Assistant Research (Assisted in the design and implementation of experiments)

- Inspired by Chinese hybrid rice, proposed a new evolutionary algorithm and applied it to image registration.
- Achieved faster convergence speed and greater robustness and published a paper as the second student author.

Extracurricular Activities

- Selected as a member of Hubei University's Chu Cai College (Innovative Talent Experimental College, promoting interdisciplinary development, **only eighty students** from the entire school were selected)
- As a volunteer, regularly participate in community clean-up efforts and utilize my professional skills to develop applications, greatly benefiting community residents.
- Served as a student union's president for a two-year term.