Qing Wang

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Department of Health Outcomes and Biomedical Informatics, College of Medicine, University of Florida, Florida, 32608, USA

RESEARCH INTERESTS

♡ NLP, LLM and KG.

♡ Data mining mainly focuses on biomedical data.

♡ Agent-based systems and RAG-based systems.

EDUCATION

► **University of Florida, USA**
M.S. in Medical Sciences, Aug.2024 - now

► **University of Colorado Boulder, USA**
Visiting Student in Department of Computer Science, Jun.2023 - Sep.2023

► **Zhejiang Normal University, China**
M.S. in Computer Science, Sep.2021 - Jun.2024, **GPA: 3.79/4**

► **Zhejiang Wanli University, China**
B.S. in Internet of Things Engineering, Sep.2017 - Jun.2021, **GPA: 3.31/4**

PUBLICATIONS

Journal articles (First or #co-first author: 3)

- Li, B., Zhang, Y., **Wang, Q.**, Zhang, C., Li, M., Wang, G., & Song, Q. (2024). Gene expression prediction from histology images via hypergraph neural networks. Briefings in Bioinformatics, 25(6), bbae500.
- **Wang, Q.**, Feng, Y., Wang, Y., Li, B., Wen, J., Zhou, X., & Song, Q. (2024). AntiFormer: graph enhanced large language model for binding affinity prediction. Briefings in Bioinformatics, 25(5), bbae403.
- Liu, X., **Wang, Q.**#, Zhou, M., Wang, Y., Wang, X., Zhou, X., & Song, Q. (2024). DrugFormer: Graph-Enhanced Language Model to Predict Drug Sensitivity. Advanced Science, 2405861.
- Shu, H., Meng, C., De Meo, P., **Wang, Q.**, & Zhu, J. (2024). Self-Supervised Hypergraph Learning for Enhanced Multimodal Representation. IEEE Access.
- **Wang, Q.**, Zhu, J., Shu, H., Asamoah, K. O., Shi, J., & Zhou, C. (2023). GUDN: A novel guide network with label reinforcement strategy for extreme multi-label text classification. Journal of King Saud University-Computer and Information Sciences, 35(4), 161-171.
- Asamoah, K. O., Darko, A. P., Antwi, C. O., Kodjiku, S. L., Aggrey, E. S. E., **Wang, Q.**, & Zhu, J. (2023). A blockchain-based crowdsourcing loan platform for funding higher education in developing countries. IEEE Access, 11, 24162-24174.

- Shi, J., Chen, Z., Zhu, J., Zhou, J., **Wang, Q.**, & Ma, X. (2024). Research on the impact of pointing gestures based on computer vision technology on classroom concentration. Neural Computing and Applications, 1-13.

Conference abstracts (First or #co-first author: 2)

- **Wang, Q.**, Zhu, J., Pan, C., Shi, J., Meng, C., & Guo, H. (2023, December). Dual trustworthy mechanism for illness classification with multi-modality data. In 2023 IEEE International Conference on Data Mining Workshops (ICDMW) (pp. 356-362). IEEE.
- Zhou, C., Zhu, J., **Wang, Q.**, Meng, C., Pan, C., & Shi, J. (2023, November). Enhancing Question Generation with Syntactic Details and Multi-Level Attention Mechanism. In 2023 7th Asian Conference on Artificial Intelligence Technology (ACAIT) (pp. 557-562). IEEE.
- **Wang, Q.**, Zhu, H., Ji, Y., Shi, J., Ma, X., & Zhu, J. (2023, August). Automatic Teaching Plan Grading with Distilled Multimodal Education Knowledge. In International Conference on Computer Science and Educational Informatization (pp. 391-404). Singapore: Springer Nature Singapore.

RESEARCH EXPERIENCE

▲ **Medical cold chain transportation monitoring system based on BLE and Android**
Sep.2019 – Nov.2019
a) Design a cold medical transportation monitoring system by combining Bluetooth low-energy wireless communication, CC2530, sensors, MCU, and CNN; b) Develop Android-side applications, and use the OneNET cloud platform for data aggregation, filtering, and storage through data streams and visualization processing.

▲ **Personalized learning path recommendation with multimodal knowledge graph**
Nov.2021 –Jun.2022
a) Clean and preprocess multimodal data; b) Design deep learning methods for multimodal data fusion and feature extraction; c) Use graph neural network combined with hypergraph to design recommendation system and complete course recommendation.

▲ **Intelligent evaluation of normal students' teaching ability with multimodal fusion**
Dec.2022 – Jun.2023
a) Design a transformer-based neural network multimodal classification algorithm to help realize the function of student profiles; b) Collect and organize literature, participate in writing reports and proposals.

▲ **The interpretability of DNN for illness classification with multi-omics data**
Jun.2023 – Jun.2024
a) Construct a novel dual trustworthy mechanism for multi-modality classification, which can make the process and results of DNN more trustable and interpretable while increasing performance.

WORK EXPERIENCE

- **Hualin Technology Co., Ltd, China**
Internship, Jun.2020 – Jan.2021
a) Design a lighting system based on MCU and BLE. b) Design an RFID-based card swiping and fee deduction system. c) Develop a digital clock based on FPGA.

SKILLS

Programming:	Python, C, Matlab, C++, Java, HTML, R
Tools:	Pytorch, Docker, Linux, IoT
Languages:	Mandarin (Native), English (IELTS: 6.5)

HONORS AND SCHOLARSHIPS

- ★ Third Prize of the Physics Contest for College Students in Zhejiang Province, Dec.2018
- ★ Bachelor's degree with Honor in Zhejiang Wanli University, Jun.2021
- ★ Kaggle Research Prediction Competition top 22% (201/936), Jan.2023
- ★ Kaggle Featured Code Competition top 6% (59/1057, Bronze Medalist), Mar.2023
- ★ Zhejiang Normal University First-Class Postgraduate Scholarship, Dec.2023
- ★ Zhejiang Normal University 2023 Graduate Study Abroad Exchange Scholarship, Dec.2023

PROFESSIONAL SERVICES AND ACTIVITIES

- **Journals**
  - Reviewer of Journal of King Saud University Computer and Information Sciences (4 times)
  - Reviewer of Journal of Computational Methods in Sciences and Engineering (JCMSE) (2 times)
  - Reviewer of Journal of Advanced Research in Applied Sciences and Engineering Technology (1 time)
  - Reviewer of BMC Biology (4 times)
  - Reviewer of Hereditas (1 time)
- **Conferences**
  - Presenter of ICDM Workshop 2023
  - Program Committee Member of ICIBM 2024
  - Reviewer of ICIBM (4 times)
- **Organizations**
  - Student Member of IEEE
  - Student Member of CCF

LINKS

↪ Google scholar

↪ Github

↪ Homepage

↪ ORCID

↪ Linkedin