Qing Wang

Cell: +1 (352) 256 3237 Email: wang.qing@ufl.edu

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: 4)

- Chaojun Meng, Changfan Pan, Hongji Shu, **Wang, Qing**, Hanghui Guo, and Jia Zhu (2025). "Heterogeneous collaborative filtering contrastive learning for social recommendation". In: *Applied Soft Computing*, p. 112934 (SCI-Q1)
- Bo Li, Bob Zhang, Chengyang Zhang, Minghao Zhou, Weiliang Huang, Shihang Wang, **Wang, Qing**, Mengran Li, Yong Zhang, and Qianqian Song (2025). "PhenoProfiler: Advancing Phenotypic Learning for Image-based Drug Discovery". In: *arXiv preprint arXiv:2502.19568*
- **Wang, Qing**, Wen-jie Chen, Bo Li, Jing Su, Guangyu Wang, and Qianqian Song (2025). "HECLIP: Histology-Enhanced Contrastive Learning for Imputation of Transcriptomics Profiles". In: *arXiv preprint arXiv:2501.14948*
- Jianyang Shi, Zhangze Chen, Jia Zhu, Jian Zhou, **Wang, Qing**, and Xiaodong Ma (2024). "Research on the impact of pointing gestures based on computer vision technology on classroom concentration". In: *Neural Computing and Applications*, pp. 1–13 (CCF-C)
- Bo Li, Yong Zhang, **Wang, Qing**, Chengyang Zhang, Mengran Li, Guangyu Wang, and Qianqian Song (2024). "Gene expression prediction from histology images via hypergraph neural networks". In: *Briefings in Bioinformatics* 25.6, bbae500 (SCI-Q1, CCF-B)
- Xiaona Liu, **Wang, Qing** #, Minghao Zhou, Yanfei Wang, Xuefeng Wang, Xiaobo Zhou, and Qianqian Song (2024). "DrugFormer: Graph-Enhanced Language Model to Predict Drug Sensitivity". In: *Advanced Science* 11.40, p. 2405861 (SCI-Q1)

- **Wang, Qing**, Yuzhou Feng, Yanfei Wang, Bo Li, Jianguo Wen, Xiaobo Zhou, and Qianqian Song (2024). "AntiFormer: graph enhanced large language model for binding affinity prediction". In: *Briefings in bioinformatics* 25.5, bbae403 (SCI-Q1, CCF-B)
- Hongji Shu, Chaojun Meng, Pasquale De Meo, **Wang, Qing**, and Jia Zhu (2024). "Self-supervised hypergraph learning for enhanced multimodal representation". In: *IEEE Access* 12, pp. 20830–20839 (SCI-Q2)
- **Wang, Qing**, Jia Zhu, Hongji Shu, Kwame Omono Asamoah, Jianyang Shi, and Cong Zhou (2023). "GUDN: A novel guide network with label reinforcement strategy for extreme multi-label text classification". In: *Journal of King Saud University-Computer and Information Sciences* 35.4, pp. 161–171 (SCI-Q1)
- Kwame Omono Asamoah, Adjei Peter Darko, Collins Opoku Antwi, Seth Larweh Kodjiku, Esther Stacy EB Aggrey, **Wang, Qing**, and Jia Zhu (2023). "A blockchain-based crowdsourcing loan platform for funding higher education in developing countries". In: *IEEE Access* 11, pp. 24162–24174 (SCI-Q2)

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

- Changfan Pan, **Wang, Qing**, Jia Zhu, Xinran Cao, Hanghui Guo, and Changqin Huang (2024). "Stable Attribution with Local Surrogate Model". In: *CCF Conference on Computer Supported Cooperative Work and Social Computing*. Springer, pp. 187–201
- **Wang, Qing**, Jia Zhu, Changfan Pan, Jianyang Shi, Chaojun Meng, and Hanghui Guo (2023). "Dual trustworthy mechanism for illness classification with multi-modality data". In: *2023 IEEE International Conference on Data Mining Workshops (ICDMW)*, pp. 356–362. DOI: 10.1109/ICDMW60847.2023.00051
- Cong Zhou, Jia Zhu, **Wang, Qing**, Chaojun Meng, Changfan Pan, and Jianyang Shi (2023). "Enhancing Question Generation with Syntactic Details and Multi-Level Attention Mechanism". In: *2023 7th Asian Conference on Artificial Intelligence Technology (ACAIT)*. IEEE, pp. 557–562
- **Wang, Qing**, Hanwen Zhu, Yilong Ji, Jianyang Shi, Xiaodong Ma, and Jia Zhu (2023). "Automatic Teaching Plan Grading with Distilled Multimodal Education Knowledge". In: *International Conference on Computer Science and Educational Informatization*. Springer, pp. 391–404

Patents

- Profile generation method, system and medium based on guide network text classification. Changqin Huang, **Qing Wang**, Jia Zhu, Hongji Shu. CN114780723B. CN202210367239.7

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

★ Zhejiang Normal University Third-Class Postgraduate Scholarship, Dec.2021

★ Zhejiang Normal University Third-Class Postgraduate Scholarship, Dec.2022

★ Zhejiang Normal University Best Academic Reporter Award, Dec.2022

★ 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
  - Reviewer of Journal of Computational Methods in Sciences and Engineering (JCMSE)
  - Reviewer of Journal of Advanced Research in Applied Sciences and Engineering Technology
  - Reviewer of BMC Biology

  - Reviewer of Hereditas
  - Reviewer of Journal of Supercomputing

* **Conferences**
  - Presenter of ChineseCSCW 2021
  - Speaker of ICDM Workshop 2023
  - Program Committee Member of ICIBM 2024
  - Reviewer of ICIBM

* **Others**
  - Speaker of UFHealth Research showcase 2025
  - Student Member of IEEE
  - Student Member of CCF

LINKS

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