

# 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

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- ♥ NLP, LLM and KG.
- ♥ Data mining mainly focuses on biomedical data.
- ♥ Agent-based systems and RAG-based systems.

## EDUCATION

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- **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

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### Journal articles (First or #co-first author: 5)

- **Qing, Wang**, Wen-jie Chen, Jing Su, Guangyu Wang, and Qianqian Song (2025). "Heclip: histology-enhanced contrastive learning for imputation of transcriptomics profiles". In: *Bioinformatics*, btaf363 (SCI-Q1, CCF-B)
- **Qing, Wang**, Yining Pan, Minghao Zhou, Zijia Tang, Yanfei Wang, Guangyu Wang, and Qianqian Song (2025). "scDrugMap: Benchmarking Large Foundation Models for Drug Response Prediction". In: *arXiv preprint arXiv:2505.05612*
- Chaojun Meng, Changfan Pan, Hongji Shu, **Qing, Wang**, 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, **Qing, Wang**, Mengran Li, Yong Zhang, and Qianqian Song (2025). "PhenoProfiler: Advancing Phenotypic Learning for Image-based Drug Discovery". In: *arXiv preprint arXiv:2502.19568*
- Jianyang Shi, Zhangze Chen, Jia Zhu, Jian Zhou, **Qing, Wang**, 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, **Qing, Wang**, 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** <sup>#</sup>, 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)
- **Qing, Wang**, 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, **Qing, Wang**, and Jia Zhu (2024). “Self-supervised hypergraph learning for enhanced multimodal representation”. In: *IEEE Access* 12, pp. 20830–20839 (SCI-Q2)
- **Qing, Wang**, 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, **Qing, Wang**, 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 <sup>#</sup>co-first author: 2)

- Changfan Pan, **Qing, Wang**, 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
- **Qing, Wang**, 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](https://doi.org/10.1109/ICDMW60847.2023.00051)
- Cong Zhou, Jia Zhu, **Qing, Wang**, 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
- **Qing, Wang**, 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

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● **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

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*Programming:* Python, C, Matlab, C++, Java, HTML, R

*Tools:* Pytorch, Docker, Linux, IoT

*Languages:* Mandarin, English

## HONORS AND SCHOLARSHIPS

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- ★ 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

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### \* Journals

- Reviewer of Journal of King Saud University Computer and Information Sciences
- Reviewer of Journal of Computational Methods in Sciences and Engineering
- Reviewer of Journal of Advanced Research in Applied Sciences and Engineering Technology
- Reviewer of BMC Biology
- Reviewer of Hereditas
- Reviewer of Journal of Supercomputing
- Reviewer of Multimedia Tools and Applications
- Reviewer of Neural Networks
- Reviewer of Discover Education
- Reviewer of Chemico-Biological Interactions
- Reviewer of Plos One
- Reviewer of Briefings in Bioinformatics
- Reviewer of Frontiers in Psychiatry

### \* Conferences

- Presenter of ChineseCSCW 2021
- Speaker of ICDM Workshop 2023
- Reviewer of ICIBM 2024/2025
- Program Committee Member of ICIBM 2024/2025

### \* Others

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

## LINKS

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- ↪ [Google scholar](#)
- ↪ [Github](#)
- ↪ [Homepage](#)
- ↪ [ORCID](#)
- ↪ [Linkedin](#)
- ↪ [ResearchGate](#)