

EDUCATION

The University of Hong Kong

- MSc in Computer Science 09/2022-now (expecting to complete by Aug. 2023)
Major courses completed: *Big Data Management; Data Mining; Deep Learning; Machine Learning*

Lanzhou University (National Project of 985 & 211), China

- BEng in Computer Science and Technology (Data Sciences) 09/2018-06/2022
GPA: 3.54 / 4.0

RESEARCH EXPERIENCE

Study of Anomaly Node/Link Detection Based on Graph Contrastive Learning 03/2023-08/2023

- Instructor: Prof. Chao Huang - The University of Hong Kong
- Developed a graph contrastive framework for node classification/recommendation/link prediction

Study on the Complex Biological Network of the Interaction Between Typical Organic Pollutant Components and Key Proteins in the Atmosphere 07/2020-10/2021

- Principle Investigator: Prof. Zhao Chunye - Lanzhou University
- National Natural Science Foundation of China: (General Program Grant No.: 21976073)
- Participated in the completion of two academic papers (see contributions in the Publications section)

Prediction of Drug Repositioning Based on Matrix Completion 12/2020-05/2021

- Principle Investigator: Prof. Yuan Yongna – Lanzhaou University
- As a peer tutor supervised the graduation thesis of an undergraduate student

Study on Alzheimer's Disease-related Compounds - Target Relationships Doubly Driven by Collaborative Network and Multi-tasking Learning 10/2019-02/2020

- Principle Investigator: Prof. Yuan Yongna – Lanzhaou University
- Responsible for data analysis and algorithm implementation

Analysis of COVID-19 Epidemic Transmission Control Based on Influence Maximization and Improved SEIR Model 02/2020-05/2020

- Principle Investigator: Prof. Zhang Ruisheng – Lanzhaou University
- Responsible for code optimization and writing the fund book and other related work

PUBLICATIONS (During the undergraduate period)

- *JOURNAL OF CHEMICAL INFORMATION AND MODELING*, ISSN 1549-9596 (**IF: 6.162**), *co-first authors*

Quantum Chemical Calculations with Machine Learning for Multipolar Electrostatics Prediction in RNA: An Application to Pentose; Yuan, Yongna*, Yan, Haoqiu#, *Cui, Zeyang*#, Liu, Zhenyu#, Su, Wei, Zhang, Ruisheng; DOI: 10.1021/acs.jcim.2c00747

Key contributor to data processing, algorithm implementation, article drafting, submission and revision

- *JOURNAL OF HAZARDOUS MATERIALS*, ISSN 0304-3894 (**IF: 10.588**)

Effects of polyethylene microplastics on cell membranes: A combined study of experiments and molecular dynamics simulations; Weilin Wang, Jinlong Zhang, Zhiqiang Qiu, *Zeyang Cui*, Ningqi Li, Xin Li, Yawei, Wang, Haixia Zhang, Chunyan Zhao*; DOI: 10.1016/j.jhazmat.2022.128323.

Responsible for data analysis and some ML algorithmic assistance

- *CHEMOSPHERE*, ISSN 0045-6535 (**IF: 8.943**)

Identification of molecular initiating events and key events leading to endocrine disrupting effects of PFOA: Integrated molecular dynamic, transcriptomic, and proteomic analyses; Ruining Guan, Feng Luan, Ningqi Li, Zhiqiang Qiu, Wencheng Liu, *Zeyang Cui*, Chunyan Zhao*, Xin Li*; DOI: 10.1016/j.chemosphere.2022.135881

Responsible for data handling and analysing large volumes of data

- *UNDER REVIEW* (During the undergraduate period)

Machine Learning Models Based on Residue Interaction Network for ABCG2 Transportable Compounds Recognition; Wencheng Liu; Ningqi Li; Ruining Guan; *Zeyang Cui*; Yawei Wang, Chunyan Zhao*

Polystyrene and polyethylene perturb the structure of membrane: An experimental and computational Study; Weilin Wang; Ningqi Li; Jinlong Zhang; Ruitong Cai; *Zeyang Cui*; Haixia Zhang, Chunyan Zhao*

INTERNSHIP EXPERIENCE

Academic Research in School of Pharmacy, Lanzhou University

07/2020-10/2021

- Participated in the work of the National Natural Science Foundation of China (General program, Grant No.: 21976073) *Research on the Complex Biological Network of the Role of Typical Organic Pollutants and Key Proteins in the Atmosphere*
- Responsible for data preprocessing and model algorithm optimization in the article *Effects of Polyethylene Microplastics on Cell Membranes: A Combined Study of Experiments and Molecular Dynamics Simulations*
- Responsible for MD data processing in the article *Identification of Molecular Initiating Events and Key Events Leading to Endorse Disrupting Effects of PFOA: Integrated Molecular Dynamic, Transcriptomic, and Proteomic Analyses*

Blockchain Technology Research Center, Shenzhen University

07/2019-08/2019

- Participated in the national key research and development program *Research and Demonstration of Key Technologies of Urban Multi-plan Data Fusion and Dynamic Cognition*
- Assisted the R&D team in collecting data and translating English and Chinese materials

PROFESSIONAL SKILLS

- Good at Python, R, Matlab, Pytorch, and Machine/Deep learning
- Skilled at data analysis, graph neural network, and computational chemistry/ bioinformatics
- Languages: English (IELTS: 6.5); Manderine (native); Cantonese (basic, will keep learning this summer)