

# CUI ZEYANG

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## EDUCATION

### The University of Hong Kong

- MSc in Computer Science 09/2022- now
- Lanzhou University (national project of 985 & 211)** **China(Mainland)**
- BEng in Computer Science and Technology (Data Science) 09/2018-06/2022
- GPA 3.54**

## PROFESSIONAL EXPERIENCE

### Study on the complex biological network of the interaction between typical organic pollutant components and key proteins in the atmosphere 07/2020-10/2021

- Participate in the completion of two academic papers (see below). (National Natural Science Foundation of China: (General program Grant No.21976073))

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

- Instructor: Prof. Yuan Yongna
- As a peer tutor, Which have full authority to supervise the graduation thesis of a undergraduate Student.

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

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

- Responsible for code optimization and writing the fund book and some related work.

## PUBLICATION(During the undergraduate period)

- *JOURNAL OF CHEMICAL INFORMATION AND MODELING*, ISSN 1549-9596 (**IF: 6.162**), **co-first author**  
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
- *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.
- *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
- **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 R&D team in collecting basic data and translating English and Chinese materials

## PROFESSIONAL SKILLS

- Good at Python, Matlab, and Drug-Target prediction.
- Skilled at machine learning, neural network, graph neural network, and computational chemistry