



## Yuxing Lu

PhD Student

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GitHub Profile

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## EDUCATION

### •Peking University

PhD. Biomedical Engineering

2022-2027(est.)

Research Areas: Biomedical AI, Metabolomic Knowledge Graph

### •Soochow University

B.S. Computer Science and Technology (Artificial Intelligence)

2018-2022

GPA: 3.8/4.0

## EXPERIENCE

### •Huawei Technologies Co., Ltd

AI Enginner(Intern)

2021.07-2021.12

Nanjing

Process data from tens of millions of end-users to establish an advertising distribution recommendation model.

### •National University of Singapore Research Institute

Research Intern

2021.02-2021.06

Suzhou

Develop a pregnancy-related QA system using knowledge graph from 27,000+ inquiries and expert responses.

## PUBLICATIONS

### •Peer-Reviewed Publications

# stands for equal contribution

- Lu, Yuxing, Rui Peng, Lingkai Dong, Kun Xia, Renjie Wu, Shuai Xu, and Jinzhuo Wang. "Multiomics dynamic learning enables personalized diagnosis and prognosis for pancancer and cancer subtypes." *Briefings in Bioinformatics* 24, no. 6 (2023): bbad378.
- Lu, Yuxing, Xiaohong Liu, Zongxin Du, Yuanxu Gao, and Guangyu Wang. "MedKPL: a heterogeneous knowledge enhanced prompt learning framework for transferable diagnosis." *Journal of Biomedical Informatics* (2023): 104417.
- Lu, Yuxing, Xukai Zhao, and Jinzhuo Wang. "Medical knowledge-enhanced prompt learning for diagnosis classification from clinical text." In *The 61st Annual Meeting Of The Association For Computational Linguistics*. 2023.
- Lu, Yuxing, Peng, Rui, Jiang, Bingheng, and Wang, Jinzhuo. "MoTIF: a Method for Trustworthy Dynamic Multimodal Learning on Omics." *IEEE BIBM* 2023.
- Wang, Guangyu, Xiaohong Liu, Zhen Ying, Guoxing Yang, Zhiwei Chen, Zhiwen Liu, Min Zhang, Hongmei Yan, Lu, Yuxing, Yuanxu Gao, Kanmin Xue, Xiaoying Li, and Ying Chen. "Optimized glyceic control of type 2 diabetes with reinforcement learning: a proof-of-concept trial." *Nature Medicine* 29, no. 10 (2023): 2633-2642.
- Wang, Jinzhuo, Gao, Yuanxu, Wang, Fangfei, Zeng, Simiao, Li, Jiahui, Miao, Hanpei, Wang, Taorui, Zeng, Jin, Daniel Baptista-Hon, Olivia Monteiro, Guan, Taihua, Cheng, Linling, Lu, Yuxing, Luo, Zhengchao, Li, Ming, Zhu, Jian-Kang, Nie, Sheng, Zhang, Kang, Zhou, Yong. "Accurate Estimation of Biological Age and its Application in Disease Prediction Using a Multi-modal Image Transformer System.", *Proceedings of the National Academy of Sciences (PNAS)* (In Press)
- Zhao, Xukai, Lu, Yuxing, and Guangsi Lin. "An integrated deep learning approach for assessing the visual qualities of built environments utilizing street view images." *Engineering Applications of Artificial Intelligence* 130 (2024): 107805.
- Xiao, Wenchao, Lu, Yuxing, Miao, Hanpei, Zhao, W., and Schanzlin, D. Deep-learning based diagnosis of myopia in children using optical coherence tomography angiography. *Medcomm Future Medicine*. (In Press)
- Zhao, Xukai#, Lu, Yuxing#, and Wang, Jinzhuo. "Multiscale scoring model for enhanced urban perception evaluation." *IEEE ICASSP 2024*. (Coming Soon)
- Zhao, Weichen, Lu, Yuxing, Ge, Jiao, and Yuan, Yang. "Dual-Color Granularity Alignment for Text-Based Person search." *IEEE ICASSP 2024*. (Coming Soon)
- Zhao, Weichen, Lu, Yuxing, Ge, Jiao, and Yuan, Yang. "Concentrated reasoning and Unified reconstruction for Multi-Modal Media Manipulation." *IEEE ICASSP 2024*. (Coming Soon)

### •Pre-Prints

- Wan, Ji, Zhongyi Nie, Jie Xu, Zixuan Zhang, Shenglian Yao, Zehua Xiang, Xiang Lin, Lu, Yuxing, Chen Xu, Pengcheng Zhao, Yiran Wang, Jingyan Zhang, Yaozheng Wang, Shaotong Zhang, Jinzhuo Wang, Weitao Man, Min Zhang, Mengdi Han. "Millimeter-scale magnetic implants paired with a fully integrated wearable device for wireless biophysical and biochemical sensing." *bioRxiv* (2023): 2023-11.
- Ke, Dengfeng, Lu, Yuxing, Xudong Liu, Yanyan Xu, Jing Sun, and Cheng-Hao Cai. "An Empirical Study on End-to-End Singing Voice Synthesis with Encoder-Decoder Architectures." *arXiv preprint arXiv:2108.03008* (2021).

## •Under Review

1. Wan, Ji, Zhongyi Nie, Jie Xu, Zixuan Zhang, Shenglian Yao, Zehua Xiang, Xiang Lin, **Lu, Yuxing**, Chen Xu, Pengcheng Zhao, Yiran Wang, Jingyan Zhang, Yaozheng Wang, Shaotong Zhang, Jinzhuo Wang, Weitao Man, Min Zhang, Mengdi Han. "Millimeter-scale magnetic implants paired with a fully integrated wearable device for wireless biophysical and biochemical sensing." *Science Advance* (In Revision)
2. Wu, Wei#, **Lu, Yuxing**#, Wang, Jinzhuo. "Determining cell type abundance by deconvolving bulk mass spectrometry profiles." *Analytical Chemistry* (In Peer Review)
3. Zhao, Xukai, **Lu, Yuxing**, Huang, Wenwen, Lin, Guangsi. "Assessing and Interpreting Perceived Park Accessibility, Usability and Attractiveness through Texts and Images from Social Media." *Sustainable Cities and Society* (Submitted)

## RESEARCH PROJECTS

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- National Training Program for College Students** 2020.05-2022.05  
*Tuanjianbao: Intelligent Recommendation System for Groups* Preside, Excellent Concluded
- Peking University New Engineering Interdisciplinary Youth Special Project** 2022.12-2023.12  
*A High-risk Infant Brain Injury Visualization Prediction Model Based on Multimodal Learning* Participated

## PATENTS AND COPYRIGHTS

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- Coupling Park Social Media Comment Text and Image Dual-Modal Scoring Method and System** 2024.01  
*Zhao, Xukai, Lin, Guangsi, Lu, Yuxing*
- Method, system, device for perception and assessment of built environments based on street images** 2023.12  
*Zhao, Xukai, Lin, Guangsi, Lu, Yuxing*
- Simulation autonomous driving system based on European Truck 2** No. 2021R11L1628129  
*Lu, Yuxing* 2021.04
- Enterprise Entity Recognition System based on Deep Learning** No. 2021R45L2584735  
*Lu, Yuxing* 2020.11

## ACADEMIC SERVICES

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- Program Committee** The 5-6th Clinical Natural Language Processing Workshop
- Reviewer** The 5th Clinical Natural Language Processing Workshop
- Reviewer** Patterns
- Teaching Assistant** Multi-Omics Artificial Intelligence Methods – 23 Fall
- Teaching Assistant** Medical Artificial Intelligence Seminar – 23 Fall, 24 Spring

## AWARDS

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- Second Prize (National)** "China Software Cup" Software Design Competition 2021.11
- Bronze Medal (National)** "Internet +" National Entrepreneurship Competition 2021.10
- Second Prize (National)** "Lanqiao" Software National Competition 2021.05
- Meritorious (International)** MCM/ICM Mathematical Modeling Competition 2021.04
- Second Prize (National)** "Lanqiao" Software National Competition 2020.10
- Silver Medal (Provincial)** "Challenge Cup" Jiangsu Entrepreneurship Competition 2020.09
- Honorable Mention (International)** MCM/ICM Mathematical Modeling Competition 2020.04

## HONORS

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- Top Ten Outstanding Youth Volunteer Exemplars** Peking University 2023.12
- Merit Student** Peking University 2023.10
- Top 100 Youth Volunteer** Peking University 2022.12
- Annul Model Student** Soochow University 2021.12
- "Yuhan" Scholarship** Soochow University 2021.10
- "Virtue Student" Scholarship** Jiangsu Education Foundation 2020.11
- Excellent Academic Scholarship** Soochow University 2019.11, 2021.11
- Outstanding Individual in Volunteer Service** Soochow University 2019.06, 2020.06, 2021.06

## SOCIAL WORKS

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- Administrative Assistant** College of Future Technology, Peking University 2023.09-Now
- Administrative Assistant** International Student Office, Peking University 2022.09-Now
- President** Student Union, SCST, Soochow University 2020.06-2021.09
- President** Youth Volunteer Association, SCST, Soochow University 2020.06-2021.09
- Executive Director** Suzhou "Star Autism Child" Program 2019.06-Now

## LANGUAGE PROFICIENCY

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- IELTS:** Overall 7.5 (L:8.0, R:8.5, S:6.5, W:6.5)
- TOEFL:** Overall 96 (L:26, R:28, S:21, W:21)
- GRE:** Overall 321 (V:152, Q:169, W:4.0)
- CET Band-4, Band-6:** 613, 580
- Mandarin:** Grade 2A