

Jiahao Wang

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RESEARCH INTERESTS

AI for Life Science

Deep Learning

EDUCATION

Sun Yat-sen University, Guangzhou, China

MPhil, Computer Science and Technology

August 2018 — June 2021

Chongqing University, Chongqing, China

Bachelor, Computer Science and Technology, Weighted Average Mark: 86.29

September 2014 — June 2018

ACADEMIC EXPERIENCE

Shanghai Jiao Tong University

Research Assistant

Shanghai, China

October 2023 — Present

- Research on deep learning for protein directed evolution, *paper under review*
- Research on deep learning for new Cas9/Cas12 protein design, *in progress*

PUBLICATIONS

Journal paper

- Jiahao, Wang, et al. “Meta Learning for Low-Resource Molecular Optimization.” *Journal of Chemical Information and Modeling* 61.4 (2021): 1627-1636.
 - Introduce model-agnostic meta learning to molecular optimization task, combined with graph-enhanced Transformer, presents rapid learning ability with limited labeled data and training iterations.

Conference paper

- Jiahao, Wang and Shuangjia, Zheng. “-” *NeurIPS 2024* (under blind review)
 - A recent work on machine-learning-assisted protein directed evolution.
- Jiahao, Wang, Minqian Liu, and Xiaojun Quan. “Progressive Dialogue State Tracking for Multi-Domain Dialogue Systems.” *ICASSP 2021-2021 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*. IEEE, 2021.
 - Based on observation that adjacent dialogue turns display minor differences of dialogue state, model dialogue state tracking in a progressive manner, and separate the model into a classifier and a generator, outperforms SOTA models including several LLM-based methods.

PROJECTS

China National University Student Innovation Training Program

Portable Wireless Body Composition Analyzer, Software Development

Chongqing, China

2015 — 2016

- Develop software to receive human impedance data from embedded device through bluetooth connection.
- Apply machine learning algorithm to analyze human obesity state.

Undergraduate Thesis Project

Learning Social Network Information Diffusion Parameters based on Expectation Maximization

Chongqing, China

2018

- Using EM algorithm to estimate the parameters of Independent Cascade model and Linear Threshold model based on large-scale social network data.

SELECTED COURSES

Master's Courses

- Foundation of Computer Science and Technology: 85/100
- Digital Image Processing: 83/100
- Theory and Algorithms for Optimization: 71/100

Bachelor's Courses

- Advanced Mathematics 1 & 2: 87/100 & 93/100
- Linear Algebra: 92/100
- Probability & Mathematical Statistics: 80/100
- Data Structure: 97/100
- Operating Systems: 86/100
- Computer Networks: 92/100
- Database Systems: 91/100

AWARDS

The Undergraduate Scholarship of Chongqing University

The Second Prize Scholarship * 1, The Third Prize Scholarship * 2

Chongqing, China

The Graduate School Scholarship of Sun Yat-sen University

The Second Prize Scholarship * 2, The Third Prize Scholarship * 1

Guangzhou, China

WORKING EXPERIENCES

BYD

Senior Software Engineer

Shenzhen, China

July 2021 — September 2023

- Implement power battery anomaly visualization & detection algorithm.
- Develop web system for manufacture data storage and analysis.
- Develop web system for R&D equipment and materials management.

ENGLISH TESTS

IELTS (Academic): 7.0 (overall score)

Listening: 7.5 — Reading: 8.0
Speaking: 6.0 — Writing: 6.5
Test date: June 2024

College English Test Band 6: 516

Listening: 164 — Reading: 211
Writing & Translation: 141
Test date: June 2015

REFERENCES

Prof. Yuedong Yang

Professor, School of Computer Science, Sun Yat-sen University, Guangzhou, China

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Prof. Shuangjia Zheng

Assistant Professor, Global Institute of Future Technology, Shanghai Jiao Tong University, Shanghai, China

E-mail: shuangjia.zheng@sjtu.edu.cn — Google Scholar