

Morre Zhao Enhao

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Place of birth: Nanjing, Jiangsu, China * *Date of birth:* 07-11-2002

Education

Bachelor's degree in Computer Science and Economics *Peking University*
double major, admitted to honor-track class for AI and computing September 2021 - June 2025
Related Courses: Advanced Mathematics, Mathematics Analysis, Numerical Analysis, Introduction to Artificial Intelligence, Introduction to Computer System, Introduction to Computing, Data Structure and Algorithm. Probability and Statistics

Exchange to Department of Engineering, Computer Science *The University of Hong Kong*
Exchange program, Full scholarship September 2023 - December 2023(expect)
Related Courses: Computer Network, Computer architecture, Discrete Mathematics, Operating System, Statistic Learning, Abstract Algebra

Research and Intern experience

AI For Science Institution *July 2022 - September 2022*
Prof T. Zhang Group *Beijing, China*

- Use Deep Learning method and genetic algorithm to simplify Chemical mechanism of combustion.
- Use Cantera to calculate the chemical reaction fluxes and visualize them.
- Grouping the chemical reactions and use sensitivity analysis to judge the importance of chemical reactions.

Peking University *February 2023 - May 2023*
Research Rotation, Advised by Prof Sun Jun, E Weinan and Zhang Shanghang *Beijing, China*

- Research Focus: AI for Finance and AI for Science.
- Repeat the result of the paper Relation-Aware Transformer for Portfolio Policy Learning. Lecture papers in group meetings: Ground State Energy Functional with Hartree-Fock Efficiency and Chemical Accuracy. Use deep-learning method to solve electronic structure and molecular dynamics problems.

Xuan Yuan Investment *July 2023 - August 2023*
Quant Researcher Internship *Beijing, China*

- Use mathematics and machine learning method to look for patterns in financial data.
- Read financial engineering research papers. Use Level2 data offered by Shanghai Stock Exchange and the Shenzhen Stock Exchange to make alphas and features. 3 alphas managed to be stored. Over 50 features are produced, used to train AI models like Transformer.

The University of Hong Kong *September 2023 - December 2023*
Research Assistant, Advised by Prof Zhao Qi *Hong Kong, China*

- Research Focus: Quantum Computation and Quantum Simulation.
- Using Google's OpenFermion framework and scientific computing packages PySCF, the Hamiltonian of water and hydrogen chains is calculated to explore the influence of grouping and exchange order on simulation accuracy.

Reward and Activities

Chinese Chemistry Olympics: Gold Medalist*November 2020**Hangzhou, Zhejiang, China*

Awarded by Chinese Chemical Society

China Merchants Securities Scholarship and Academic Merit Award*June 2022**Beijing, China*

Awarded by Peking University

Baruch-NSD Online Summer Camp*August 2023**Beijing, China*

Complete with distinction

Jane Street: SEE*October 2023**Hong Kong, China*

A three day event held by Jane Street

Skills

Programming Languages/ToolsC, C++, Python(Numpy,Pandas,Pytorch), L^AT_EX, Linux**English Proficiencies**

CET6: 632, TOEFL: 94

Publication

Paper

A deep learning-based model reduction (DeepMR) method for simplifying chemical kinetics, arXiv:2201.02025v3

Memberships

Peking University

Hedge Fund Association

Peking University

Algorithm Association

Collage of EECS

Tennis Team