Renjie Zhu

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EDUCATION

East China Normal University, Shanghai, China Sep. 2021-Jun. 2025(Expected)

Bachelor of Science

- **GPA**: 3.87/4.0 (Top 1/59)
- **Relevant Courses**: Physical Chemistry, Artificial Intelligence and Molecular Science, Medicinal Chemistry, Molecular Modelling: Principles and Applications, Artificial Intelligence Foundation and Application

RESEARCH EXPERIENCE

Project 1: *Coarse-grained model development and theoretical simulation of microtubule* 2022-Present

National Innovation and Entrepreneurship Training Program for College Students

***Project Leader* (NYU-ECNU Center for Computational Chemistry)**

Supervisor: Assoc. Prof. Fei Xia

- Proposed a new method for coarse-grained modeling of microtubules to improve modeling efficiency;
- Completed theoretical simulation studies of microtubule physical properties and biological processes

Achievement: Zhu, R., Zhang, Y*., & Xia, F*. (2024). Coarse-Grained Dynamic Simulation of Cytoskeletal Microtubule Twist. *bioRxiv*. https://doi.org/10.1101/2024.10.16.618782

Project 2: *Protein pocket alignment based on surface fingerprint* 2024-Present

Westlake University Summer Internship Program

Supervisor: Assoc. Prof. Jing Huang

- Proposed an alignment framework based on the surface properties of protein pockets;
- Designed a similarity scoring function and completed some basic benchmarking tests

PROFESSIONAL EXPERIENCES

Shanghai College Students' Chemistry Experiment Innovation Design Competition Aug. 2023

Team Leader

- Designed a novel undergraduate integrated experiment, based on existing scientific research results

Achievement: Special prize (Top 1)

Contemporary Undergraduate Mathematical Contest in Modeling (CUMCM) Sep. 2023

Team Leader

- Completed data modeling and analysis using various mathematical algorithms such as time series analysis, multiple linear regression, linear programming, Monte Carlo search, and so on

Achievement: Second prize (Top 3%)

HONORS & AWARDS

National Scholarship for Undergraduate Students (For Top 1) 2022/2024

Special Scholarship for Outstanding Students of ECNU (For Top 1) Dec. 2023

Outstanding Report Award of the 9th ECNU Undergraduate Innovation and Entrepreneurship Academic Forum Dec. 2023

LANGUAGES & SKILLS

Languages: Mandarin (Native), English (IELTS: 7.5)

Computer Skills: Python, Linux, Lammps, Amber, Discovery Studio, Origin, AI&PS