Huizhong Chen

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Education

South China Sea Institute of Oceanology, CAS, Guangzhou, China 2023 – Present

M.Sc. in *Physical Oceanography*, expected July 2026

Zhejiang University, Hangzhou, China 2019 – 2023

B.Sc. in *Marine Science*, GPA: 3.86/4.0 (87.95/100)

Publications and Manuscripts

The Impact of Archipelagic Topography on Air–Sea Interaction and Typhoon Intensity in the South China Sea

Manuscript in preparation, expected submission 2025

- Conducting high-resolution air–sea coupled model simulations to examine how the Xisha Islands influence tropical cyclone intensity in the South China Sea.
- Analyzing simulation results to quantify how island-induced air–sea feedbacks modify heat fluxes and cyclone intensity.

Research Experience

Undergraduate Thesis 2023

- *Research on the Influencing Factors in Estimation and the Spatiotemporal Distribution of Global Air-Sea CO_2 Flux*
- Compared 11 parameterization schemes for air-sea CO_2 exchange rates and evaluated their impacts on flux estimation accuracy.
- Mapped and analyzed the global spatiotemporal patterns of oceanic CO_2 sources and sinks using observational datasets.

Student Research Training Project (SRTP) 2022

- *Significant Wave Height Forecast Based on Artificial Neural Network*
- Designed and implemented an LSTM-based neural network to forecast significant wave height (SWH) time series at some fixed observational stations.
- Achieved improved forecast accuracy compared to traditional statistical baselines, demonstrating the potential of deep learning for marine prediction tasks.

Honors and Awards

Zhengjiang University Scholarship, *3rd Prize* 2023
Zhengjiang University Scholarship, *1st Prize* 2022
Outstanding Student, Zhejiang University 2022
Zhengjiang University Scholarship, *3rd Prize* 2021

Research Interest

- Physical Oceanography; Ocean Modeling; Air-Sea Interaction
- High-Performance Computing (at a beginner/intermediate level)

Miscellaneous

- *Languages*: English (IELTS: 7.0), Mandarin (Native speaker)
- *Languages in programming*: Python == MATLAB > Fortran > C/C++