

# HUIZHONG CHEN

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## 🎓 EDUCATION

**South China Sea Institute of Oceanology (SCSIO), CAS** Guangzhou, China 2023 – Present  
*M.Sc. in Physical Oceanography*, expected Jul. 2026 GPA: 3.88/4.0

**Zhejiang University (ZJU)** Hangzhou, China 2019 – 2023  
*B.S. in Marine Science*

## 📖 PUBLICATIONS AND MANUSCRIPTS

### The archipelago-induced sub-mesoscale processes and its impact on typhoon air-sea interactions in the northwestern South China Sea

*Manuscript in preparation, expected submission in 2025*

- Conducting high-resolution air-sea coupled model simulations to examine how the Xisha Islands influence the surrounding oceanic environments and further tropical cyclone in the South China Sea.
- Analyzing simulation results to investigate how island-induced sub-mesoscale processes and air-sea feedbacks modify air-sea heat fluxes and tropical cyclone intensity.

## 🔗 RESEARCH EXPERIENCE

### ZJU - Undergraduate Thesis 2023

*Research on the Influencing Factors in Estimation and the Spatiotemporal Distribution of Global Air-Sea CO<sub>2</sub> Flux*

- Compared 11 parameterization schemes for air-sea CO<sub>2</sub> exchange rates and evaluated their impacts on flux estimation accuracy.
- Mapped and analyzed the global spatiotemporal patterns of oceanic CO<sub>2</sub> sources and sinks using observational datasets.

### ZJU - Student Research Training Project (S RTP) 2021 - 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

Academic Scholarship, University of Chinese Academy of Sciences 2023, 2024  
Outstanding Graduate of Zhejiang University 2023  
Zhengjiang University Scholarship, 3<sup>rd</sup> Prize 2021, 2023  
Zhengjiang University Scholarship, 1<sup>st</sup> Prize 2022  
Outstanding Student, Zhejiang University 2022

## ✌ 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++
- Proficient in atmosphere model WRF and ocean model POM