Huizhong Chen

chenhuizhong2001@gmail.com · GitHub · Homepage · BlueSky

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* GPA: 3.86/4.0

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_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.

ZJU - Student Research Training Project (SRTP) 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, *3rd Prize*	2021, 2023
Zhengjiang University Scholarship, *1st 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