

# Minghao Guo



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🌐 <https://minghaoguo20.github.io>

## Education

- 2020.09 – 2024.06  **B.S., Zhejiang University** Ocean Technology.  
GPA: 90.19/100 (Rank: 8/142)
- 2022.09 – 2022.12  **Exchange, The Chinese University of Hong Kong** Computer Science.

## Research Experiences





- 2023.12 – now  **Diffusion Model based ENSO Prediction**  
Mentor: *Prof. LinChao Zhu @ZJU CCAI lab* (intern)  
This is the project for my upcoming graduation thesis.
- 2023.07 – 2023.10  **Diffusion Model based Video Editing**  
Mentor: *Prof. LinChao Zhu @ZJU CCAI lab* (intern)  
We proposed a diffusion model based video editing method. Given a **texture reference image** and a **video sequence** as input, our method can **replace the texture of the video** with the texture of the reference image while preserving the structure of the video.
- 2023.02 – 2023.04  **Robust Sentence-Level Evaluation**  
Cooperator: *Xiangru Tang, Yilun Zhao @Yale* (Remote RA)  
To address the issue of **hallucinations and factual inconsistencies** in long text summary task in current language models, we proposed a set of solutions. The paper is currently under review.
- 2022.11 – 2022.12  **Voice Conversion**  
Mentor: *Dr. Chuck-jee CHAU @CUHK* (AIST2010 class project)  
We proposed a method to recreate music from an existing track by employing Multi-scale Multi-band DenseNet for vocal and background separation, followed by voice conversion to modify both elements.
- 2022.07 – 2022.10  **Underwater Overlapping Fish Detection Study**  
Mentor: *Prof. Hui Huang @ZJU* (SRTP)  
We enhance underwater target detection using YOLOv5 by incorporating preprocessing, attention mechanisms, and leveraging pre-trained models.

## Selected Honors & Awards

### Scholarship

- 2022  **China Harbor Scholarship**
- 2021  **China National Scholarship**

### Competition

- 2022  **First Prize** of Zhejiang Province Student Physics Innovation, Theory
- 2021  **Third Prize** of National Zhou Peiyuan University Mechanics Competition
-  **First prize** in the National University Mathematics Competition, non-mathematics group
- 2020  **First prize** in the National University Mathematics Competition, non-mathematics group