Yiyi Jiang

Date of Birth: 1/17/1999
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Personal Website

EDUCATION

Zhejiang University (985) *Hangzhou, China*
MPhil. In Mechanicial Engineering, Ocean College *Sep.2021 – June.2024*
GPA: 83/100
Outstanding graduates student； Outstanding graduates

Dalian Maritime University （211） *Dalian,China*
B.Eng. in Marine Engineering college *Sep.2017 – June.2021*
GPA:4.0/5.0 (1st /85)
National scholarship； Outstanding graduates

RESEARCH PROJECT

Zhejiang University

Research on Coral Detection Technology Based on Machine Vision *2023.01-2023.08*

- Project Description: The purpose of the project is to research a coral information processing technology based on image processing and neural networks. It is used to process coral images or videos obtained in various ways, identify corals, and obtain information such as coral species, quantity, size, and depth.
- Skills and Tools: Deep learning-based object detection method, binocular stereo vision, tracking and counting algorithm.

Design and Manufacturing of AUH (Autonomous Underwater Helicopter) *2021.09-2022.12*

- Project Description: The objective of the project is to design and manufacture an AUH specifically for coral detection , aimed at mid-scale coral exploration. Based on the requirements for coral detection, the AUH will be designed to carry the coral detection technology developed to detect corals , enabling the detection of corals.

SCIENTIFIC RESEARCH ACHIEVEMENTS

- **Jiang Y,** Qu M, Chen Y. Coral Detection, Ranging, and Assessment (CDRA) algorithm-based automatic estimation of coral reef coverage[J]. Marine Environmental Research, 2023, 191: 106157.
- Zhang F, Jia X, Lin Z, **Y Jiang**, M Qu. The outbreak of Drupella snails and its catastrophic effects on coral reefs: a comprehensive review[J]. Frontiers in Marine Science, 2024.
- Qu, M., **Jiang, Y.**, Di, Y., et al. Method and application for identification and counting of micro-nucleated cells in marine bivalves based on deep learning [P]. Hainan Province: CN117253229A, December 19, 2023.
- Qu, M., **Jiang, Y**. In-situ restraining device for large marine organisms such as bivalves based on ROV [P]. Hainan Province: CN117678578A, March 12, 2024.
- Qu, M., **Jiang, Y.**, Di, Y., et al. A method for early detection and warning of marine environmental pollution [P]. Hainan Province: CN202410091595.X, 2024-02-27.
- In application: Ying Chen, Haoda Li, Xinyu An, Zhikun Wang, **Yiyi Jiang**, and Haocai Huang. The instruction manual for the Dual-Drive Autonomous Underwater Helicopter, a patent currently under review.
- **Jiang, Y.**, & Chen, Y. (2023). "Mid-Scale Coral Detection Platform." presented at the National Conference on Marine Technology (China). Yiyi Jiang delivered the on-site presentation.

RESEARCH FOCUS

Computer vision
Underwater robotics
Deep learning
Image processing

PROFESSIONAL SKILLS

Mastery of Windows and Linux systems.
Proficiency in commonly used office software and language development tools, such as Office and PyCharm.
Proficiency in the Python programming language.

ABOUT ME

Motivation for doctoral degree: Devoted to exploring diverse modes of thinking and problem-solving approaches, I aim to enhance my learning abilities, foster innovative thinking, and develop effective problem-solving skills.