

WEIJIE MA

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EDUCATION

The Chinese University of Hong Kong (SZ)	M. Phil., Computer Sci. & Tech.	2021 – present
Zhengzhou University	B. Eng., Telecommunication Eng.	2017 – 2021

RELEVANT SUBJECTS

Calculus: 4.0/4.0 Probability and Statistics: 4.0/4.0 Complex Function and Integral Transform: 4.0/4.0
Programming Basic: 4.0/4.0 Principle of Microcomputer: 3.7/4.0 Information Theory and Coding: 3.7/4.0

PUBLICATIONS

Weijie Ma, Ye Zhu, Ruimao Zhang, Zhen Li et al. “*Toward Clinically Assisted Colorectal Polyp Recognition via Structured Cross-modal Representation Consistency*” **Early Accepted** (Top 13%) **MICCAI 2022**

ACADEMIC COMPETITIONS & HONORS

<i>Organizer</i>	MICCAI Multi-Modality Abdominal Multi-Organ Segmentation Challenge 2022	Singapore 2022
<i>The 3rd Place</i>	The IJCAI-2019 Eldercare Robot Challenges (<i>Task Challenge</i>)	Macao 2019
<i>Excellent Design Work Prize</i>	The IJCAI-2019 Eldercare Robot Challenges (<i>Design Challenge</i>)	Macao 2019
<i>Champion</i>	RoboCup Asia-Pacific (TianJin Invitational Tournament) 2019 @ <i>Home League</i>	2019
<i>Champion</i>	RoboCup China 2019 @ <i>Home League</i>	2019
<i>The 2nd Place</i>	China Robotics Competition Service Robot Racetrack (<i>WhoIsWho Event</i>)	2019
Provincial-level Merit Student Award of Henan, China (Top 0.3%)		2019
First-Class Scholarship & University Merit Student Award of ZZU		2018

SELECTIVE PROJECTS AND RESEARCH EXPERIENCE

Referring Image Segmentation with Coarse-To-Fine Semantic Grouping Present

- Proposed a new paradigm of referring image segmentation via knowledge semantic grouping. Adopting a coarse-to-fine pathway, we designed a structured knowledge proxy and proposed two solutions to improve the current framework. The study and relevant experiments are in progress and we plan to submit the expected outcome to the top conference this year.

Colorectal Polyp Recognition via Cross-modal Representation Consistency 2022

- Proposed a novel Transformer-base framework for colorectal polyp recognition with Cross-modal Global Alignment and Spatial Attention Module. With multi-level consistency between White-light (WL) and advanced Narrow Band Imaging (NBI) images, there is a more accurate diagnosis performance during WL-only model inference. Specifically, the proposed method achieve 2.4% higher performance as well as even approximately 1 million parameters decline. (This work was early accepted by MICCAI 2022)

The IJCAI-2019 Eldercare Robot Challenges (The 3rd Place) 2019

- Utilized OpenPose to form a simple skeleton feature map and designing a VGG-based CNN for pose estimation, thereby triggering the response to the specific posture behavior through ROS; Use multi-angle and multi-scale data augmentation to collect dataset, and combine YOLOv4 to quickly obtain accurate recognition results under the limited number of on-site drugs in the competition to assist the elderly in taking medicine.

PERSONAL ABILITY

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- Familiar with Python & C++, Ever Java development experience; Good programming style
 - Familiar with the common algorithms of deep learning; Good at PyTorch and Linux.
 - Familiar with the development and distributed communication of ROS (Robot Operating Platform).

OTHERS

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- School-level Merit Student Award, Excellent Student Cadre Award of ZZU
 - Grade-level and Class-level Student Committee in ZZU; IELTS 6.5; CET-6
 - Enthusiastic, Persistent, Good team spirit, Love thinking and innovating.