YE ZHU

Baogang Avenue No.106, Haizhu District, Guangzhou, Guangdong, China

Education

South China Agricultural University

Bachelor of Engineering in Software Engineering

Sep. 2017 – June. 2021 Guanqzhou, China

Relevant Coursework

GPA: 86.07/100

- Data Structure
- Database System
- Advanced Programming
- Artificial Intelligence
- Assembly Language Programming
- Software Architecture
- Analysis and Design of Algorithms
- Computational Intelligence

Research Experiments

Toward Unpaired Multi-modal Medical Image Segmentation via Learning Structured Semantic Consistency Jie Yang, Ye Zhu, Chaoqun Wang, Ruimao Zhang*, Zhen li

August 2022, AAAI 2023 (under review).

- Proposed a novel method for performing unpaired multi-modal medical image segmentation based on a single Transformer by learning the structured semantic consistency between modalities.
- Collaborated in conducting extensive evaluations on two medical image segmentation scenarios, outperforming the state-of-the-art methods with a large margin.
- Collaborated in writing the summited paper.

AMOS: A Large-Scale Abdominal Multi-Organ Benchmark for Versatile Medical Image Segmentation

Yuanfeng Ji, ..., Ye Zhu, Ruimao Zhang*, Zhen Li*, Xiang Wan2* and Ping Luo*

April 2022, NeuraIPS 2022 (accept), with Average Rating:8 (Min:7, Max:9).

- Built a new large-scale, diverse, and clinical abdominal organ segmentation dataset 0f 600 CT/MRI scans, namely AMOS, which is comprehensive with 15 organs, and is the largest dataset of its kind.
- Collaborated in benchmarking current baseline methods on this newly built dataset with various evaluation metrics, and designed extended experiments to validate that AMOS could serve as a versatile dataset for multiple learning tasks.
- As a co-developer of this project's source code in github.

Toward Clinically Assisted Colorectal Polyp Recognition via Structure Cross-modal Representation Consistency Weijie Ma, Ye Zhu, Ruimao Zhang*, Jie Yang, Yiwen Hu, Zhen Li and Li Xiang

February 2022, MICCAI 2022 (early accept, top 13%).

- Proposed a novel Transformer-based framework is introduced to tackle WL-only CPC, which proposed the Cross-modal Global Alignment (CGA) and a newly designed Spatial Attention Module (SAM) to pursue the structured semantic consistency.
- Collaborated in conducting extensive evaluations on CPC-Paired Dataset with two paired image modalities (WL-NBI).
- Collaborated in writing the summited paper.

Hybrid-Order Anomaly Detection on Attributed Networks

Ling Huang, Ye Zhu, ..., Yong Tang, and Chang-Dong Wang*

July 2021, TKDE 2021 (early accept).

- Defined a new problem of hybrid-order anomaly detection on attributed networks, which aims to detect not only structure/attribute-abnormal nodes but also structure/attribute-abnormal motif instances.
- Developed a new deep learning model called Hybrid-Order Graph Attention Network (HO-GAT) and conducting extensive experiments on real-world datasets, confirming the effectiveness of the HO-GAT method.
- Collaborated in writing the summited paper.

Programming Skills

Programming Languages: Python, Java, C Developer Tools: VS Code, Eclipse, Pycharm Technologies/Frameworks: Linux, GitHub

Additional Information

Languages: Cantonese (Native), Mandarin (Proficient), English (Proficient - IELTS: 7.0)