

# YE ZHU

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## Education

**South China Agricultural University**

**Sep. 2017 – June. 2021**

*Bachelor of Engineering in Software Engineering*

*Guangzhou, China*

## Relevant Coursework

**GPA:** 86.07/100

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

## 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 submitted 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, NeurIPS 2022** (accept), with Average Rating:8 (Min:7, Max:9).

- Built a new large-scale, diverse, and clinical abdominal organ segmentation dataset of 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 submitted 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 submitted 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)