Rongfeng WEI

Location: Hong Kong

breezewrf.github.io | GitHub | Email: breezewrf@gmail.com | Mobile: +852 59363379

Introduce myself

I am a Junior Programmer at LSCM R&D Center, The University of Hong Kong. I received my BSc. degree from College of Computer and Data Science, Fuzhou University, China, supervised by Xiao Ke, and Msc. degree from City University of Hong Kong at Department of Electronic Engineering, supervised by Bernard Chiu.

Education

City University of Hong Kong — Hong Kong
Master of Science in Multimedia Information Technology — *Sep 2022 – Aug 2023*
GPA: 3.37/4.3, Credit

Fuzhou University(211) — Fuzhou, China
Bachelor of Science in Computer Science — *Sep 2018 – June 2022*
GPA: 82/100, top 30%

Experience

Research Intern (Smart Surgical Safety System) — Hong Kong
Centre for Artificial Intelligence and Robotics, Chinese Academy of Sciences — *May 2023 – Aug 2023*
Advisor: Dr. Jinlin Wu and Prof. Zhen Chen

Research Assistant — Zhuhai, China
Sun Yet-Sen University — *June 2022 – Aug 2022*

Research

Multistream Fusion Segmentation and Classification of Prostate Lesions from MRI (2023) SPIE Medical Imaging

- We integrated lesion segmentation and classification, allowing information flow between the two tasks. And the CAMs generated by classification improve segmentation.
- We extended the two-pass weakly supervised method to multiple modalities image classification and showed that the two-pass network has better classification performance than the one- pass network.

Visual Watermark Removal Based on Deep Learning (2022) Paper Link

- We proposed a one-stage neural network named AdvancedUnet to extract and remove the visual watermark simultaneously. In each stage of the U-structure, we embed an effective RSU module instead of the original module in UNet, which enabled the network to learn deeper features and be more robust with multi-scale.
- A novel deep-supervised-hybrid loss that fused BCE, SSIM, and IoU in each stage is proposed to predict the mask of watermark more accurately. Our method surpassed the baseline (CVPR 2019) by a large margin.

Multiple Ship Tracking (2022) Paper Link

- In this paper, we extensively explored the application of MOT in MST. Starting from traditional computer vision based methods to modern deep learning based methods, this paper not only emphasized the importance of traditional tracking architecture, but also explored the application of deep neural network.
- The SiamMOT we implemented had shown great strength, which paid more attention to the association part to enhance the capability of motion modeling.

Competitions and Honors

- MICCAI 2023 Surgical Tool Localization in endoscopic videos Rank.6
- The National Third Prize of 9th China Software Cup
- The Third Prize of 12th China University Student Service Outsourcing Innovation and Entrepreneurship Competition
- The First Prize of 11th Cross-Strait Information Service Innovation Competition
- Outstanding Student Leader of Fuzhou University
- The Second Prize of Fuzhou University Outstanding Student Scholarship
- The Second Prize of "UpTop" Scholarship