Qian Zhou

Information

Ph.D. student (second year) in Computer Science at Wuhan University.

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Personal website: https://liyiersan.github.io/

Education

Ph.D. in Computer Science, Wuhan University, Advisor: Prof. Zhongyuan Wang | Sep. 2023 – Present

M.E. in Computer Science, Wuhan University, Advisor: Prof. Hua Zou | Sep. 2021 – June 2023

B.E. in Software Engineering, Wuhan University, GPA: 3.76/4.0 | Sep. 2017 – June 2021

Research Interests

Gait Recognition, including silhouette-based methods and multi-modal approaches.

Medical Image Analysis, including segmentation and classification techniques.

Road Network Representation Learning, focusing on robust features for various downstream tasks.

Publications

1. **Qian Zhou**, Yuhan Gao, Hua Zou, and Zhongyuan Wang. **Pre-trained Diff-VQA: Pre-trained Models Help Medical Difference Visual Question Answering Do Better.** *Under review*. [code]
2. Tongyu Yang, **Qian Zhou**, and Hua Zou. **UML: A Unified Multimodal Learning Framework for Cataract Postoperative Visual Acuity Prediction with Uncertain Missing Modalities**. *Under review*. [code]
3. **Qian Zhou**, Hua Zou, Zhongyuan Wang, Haifeng Jiang, and Yong Wang. **Refining Intraocular Lens Power Calculation: A Multi-modal Framework Using Cross-layer Attention and Effective Channel Attention**. *Medical Image Computing and Computer-Assisted Intervention (MICCAI 2024)*. [paper][poster][code]
4. **Qian Zhou**, Ting Chen, Hua Zou, and Xuan Xiao. **Uncertainty-aware incomplete multimodal fusion for few-shot Central Retinal Artery Occlusion classification**. *Information Fusion*. [paper]
5. **Qian Zhou**, Hua Zou, Fei Luo, and Yishi Qiu. **RHViT: A Robust Hierarchical Transformer for 3D Multimodal Brain Tumor Segmentation Using Biased Masked Image Modeling Pre-training**. *IEEE International Conference on Bioinformatics and Biomedicine (BIBM 2023)*. [paper]
6. **Qian Zhou**, Hua Zou, Haifeng Jiang, and Yong Wang. **Incomplete Multimodal Learning for Visual Acuity Prediction After Cataract Surgery Using Masked Self-Attention**. *Medical Image Computing and Computer-Assisted Intervention (MICCAI 2023)*. [paper] [poster][code]
7. **Qian Zhou**, Hua Zou, and Zhongyuan Wang. **Long-tailed Multi-label Retinal Diseases Recognition via Relational Learning and Knowledge Distillation**. *Medical Image Computing and Computer-Assisted Intervention (MICCAI 2022)*. [paper][poster]

Skills

Programming Languages: Proficient in Python, C++, and MATLAB.

Deep Learning Frameworks: Experienced with PyTorch, Keras, and OpenGait.

Machine Learning & AI: Skilled in deep learning techniques, model training, and neural network design.

Software Development: Strong coding skills, including debugging, optimization, and algorithm implementation.