# YIQING WANG

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# **EDUCATION**

### Shanghai Jiao Tong University (SJTU), Shanghai, China

2019 - Present

Undergraduate student major in Biomedical Engineering (BME), minor in Computer Science (CS)

- GPA: 3.85/4.3Rank: 5/76
- Major Coursework: Digital Electronics (99), Microcomputer Principles (96), Biomedical Signals and System (94.5), Biomedical Image Processing (95), Principles of Automatic Control (92)
- Minor Coursework: Discrete Mathematics (94), Software Engineering (87), Computer Network (85), Operating Systems (80)

# ♥ Honor and Awards

Scholarship of School of Biomedical Engineering Alumni Association	Nov. 2022
Merit Student of Shanghai Jiao Tong University	Oct. 2022
Shanghai Municipal Government Scholarship	Oct. 2021
Class A Scholarship of Shanghai Jiao Tong University	Oct. 2020
Scholarship of School of Biomedical Engineering Alumni Association	Oct. 2020

# **♥** SCHOLAR EXPERIENCES

#### **CITI** @ **SJTU** directed by Guoyan Zheng

Aug. 2021 – Feb. 2022

Student Project Key Algorithms for 3D Reconstruction from 2D X-rays and Intelligent Diagnosis

- Evaluated popular deep-learning segmentation networks
- Improved the performance of domain adaptation segmentation based on Cross Domain Transformer
- Awarded an outstanding student project

### Advanced MRI Lab @ SJTU directed by Hongjiang Wei

Feb. 2022 - Jan. 2023

Internship Brain Region Segmentation and Age Estimation Using QSM

- Created a novel network to segment several key brain areas on QSM images to improve brain age prediction
- Improved brain age estimation compared to previous studies based on T1w MRI
- Accepted by ISMRM 2023 and submitted to NeuroImage

# CCVL @ JHU directed by Alan Yuille & VLAA @ UCSC directed by Yuyin Zhou & Cihang Xie June. 2022 – Nov. 2022

Summer Internship Multi-view MAE for 3D medical image representation learning

- Presented the first multi-view pipeline for self-supervised medical image analysis
- Achieved a comparable performance to the current state-of-the-art method with less training cost
- Submitted to CVPR 2023

### IMIT @ SJTU directed by Lichi Zhang

Dec. 2022 – Present

Thesis Intelligent Registration and Parameter Planning for Lower Limb Multi-modal Image

- Construct a 2D-3D registration method for plain X-ray and CT images
- Compute the optimal parameters to guide the plate for HTO surgery

# PUBLICATIONS

(First Author) <sup>1</sup>**Yiqing Wang**, Yuting Shi, Hongjiang Wei. A Brain Age Estimation Network based on QSM using the Segment Transformer. 2023 International Society for Magnetic Resonance in Medicine (ISMRM). (Accepted)

(Co-first Author) <sup>1</sup>**Yiqing Wang**, <sup>1</sup>Zihan Li, Zihao Wei, Jieru Mei, Li Liu, Chen Wang, Alan Yuille, Shengtian Sang, Cihang Xie, Yuyin Zhou. SwinMM: Masked Multi-view with Swin Transformers for 3D Medical Image Segmentation. 2023 IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR). (Submitted)

(Co-first Author) <sup>1</sup>Mingxing Chen, <sup>1</sup>**Yiqing Wang**, <sup>1</sup>Yuting Shi, Xiaojun Guan, Yuyao Zhang, Hongjiang Wei. Brain age prediction based on QSM using Segmentation Transformer. *NeuroImage*. (Submitted)

# SKILLS

**Programming Languages** Python, C, C++, Matlab **Deep Learning Frameworks** PyTorch, TensorFlow, Keras

### **LANGUAGES**

### **English** Fluent

- TOEFL Total 107, Reading 30, Listening 29, Speaking 22, Writing 26
- GRE Quantitative 170, Verbal 153, Analysis Writing 3.5

Chinese (Mandarin) Native Speaker