XINZHEN ZHANG

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Second-year Master Student

Education

Sep.2017 - present
Master of Medical Imaging in Biomedical Engineering
Shanghai Jiao Tong University (SJTU)
Major GPA: 3.63/4.0; Achieved the First-Class Academic Scholarship

Sep.2013 - Jun.2017
Bachelor of Engineering in Biomedical Engineering
Shanghai Jiao Tong University (SJTU)
Major GPA: 3.63/4.3; Rank: 6/45

Research experience

Dec.2018 - present
Low-dose CT Reconstruction via Adaptive Dictionary Learning
Biomedical Imaging & Image Processing Lab, SJTU, Supervisor: Prof. Jun Zhao
- Reconstructed image with prior images in multi-resolution and adjusted the patch size adapting to each local regions.

Sep.2016 - Dec.2018
Algorithm for Circular Cone-beam CT with Large Cone-angle
Biomedical Imaging & Image Processing Lab, SJTU, Supervisor: Prof. Jun Zhao
- Proposed an FDK correction method to eliminate cone-beam artifacts.
- Designed an FDK-based iterative CT reconstruction framework.

Jun.2016 - Aug.2016
Application of Microfluidic Lab-on-a-Chip Devices in Cancer Biology
Living Devices Lab, University of Minnesota, Supervisor: Prof. David Wood
- Fabricated microfluidic devices for cancer research.
- Imaged MDA-MB-231 invasion on blood outgrowth endothelial cells (BOEC) droplets via fluorescence microscopy.
- Completed automatic cell count with imaging processing.

May.2015 - May.2016
Optimization for Orthopaedic 3D Printing
Undergraduate Innovation Program of SJTU, Supervisor: Prof. Li Liu
Designed a visual software platform to covert the medical images into 3D digital model for 3D printing.

Teaching Experience

Jun.2018 - Jul.2018 Teaching Assistant, Advances in Medical Imaging and Image Analysis

Department of Biomedical Engineering, SJTU

- Responsible for contacting lecturers, reviewing and scoring the final reports.

Publication

Qijiang Ma, **Xinzheng Zhang**, Weikang Zhang, Yanfeng Du, Jun Zhao, Jianqi Sun, An approach to decrease the undesirable effect of CT tube x-ray focal motion on image quality, accept

Awards

Dec.2018 Won the First Prize in the 15th China Post-Graduate Mathematical Contest in Modeling (Top 0.1%)

Ministry of Education Degree and Graduate Education Development Center

Dec.2016 Academic Excellence Scholarship Class-B

Shanghai Jiao Tong University (SJTU)

Oct.2016 LUYUEJIAO Scholarship for study abroad in 2016

Shanghai Jiao Tong University (SJTU)

Dec.2014 Won the Second Prize in the 31st National Physics Competition for College Students

Shanghai Physical Society

Skills

Courses in Undergraduate

Biomedical Image Processing. Signals and Linear System. Digital Signal Processing. Digital Electronics Technology. Analog Electronic Technology. Microcomputer Principles. Principles of Automatic Control. Artificial Intelligence and medicine.

Courses in Master

Advanced Biomedical Image Processing. Numerical Analysis. Matrix Theory. Advances in Medical Imaging and Image Analysis. Computer Vision. Brain like Intelligence. Biomedical Signal Processing.

Programming Languages

Matlab, C++, java, python

Languages

Mandarin (native), English (fluent), German