DONGMING WEI

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EDUCATION

Shanghai Jiao Tong University, Shanghai *Sep. 2016 - March 2021 (Exp.)*
Ph.D. Candidate, School of Biomedical Engineering
University of North Carolina at Chapel Hill, Chapel Hill *Jan. 2019 - April 2020*
Visiting Researcher, Research Assistant sponsored by NIH
Dep. of Radiology and Biomedical Research Imaging Center (BRIC)
Beihang University, Beijing *Sep. 2012 - June 2016*
Bachelor of Information Engineering Overall Rank: 3/170
University of Oulu, Oulu *Feb. 2016 - Aug. 2016*
Visiting Student, CMVS, Dept. of Computer Science and Engineering sponsored by CSC
National Sun Yat-sen University, Kaohsiung *July 2013*
Visiting Student, Dept. of Computer Science and Engineering sponsored by Beihang University

SELECTED PUBLICATION

[1] **Wei D**, Zhang L, Wu Z, Cao X, Li G, Shen D, and Wang Q."Deep Morphological Simplification Network (MS-Net) for Guided Registration of Brain Magnetic Resonance Images." Pattern Recognition (2019): 107171.(**IF: 7.196**)
[2] **Wei D**, Ahmad S, Huo J, Yap P, Xue Z, Li W, Shen D, Wang Q. "SLIR: Synthesis, Localization, Inpainting, and Registration for Image-Guided Thermal Ablation of Liver Tumors." Medical Image Analysis (2020): 101763. (**IF: 11.148**)
[3] **Wei D**, Ahmad S, Huo J, Ge Y, Peng W, Yap P, Xue Z, Li W, Shen D, Wang Q. "Synthesis and Inpainting-based MR-CT Registration for Image-Guided Thermal Ablation of Liver Tumors." MICCAI 2019, Shenzhen, China, Oct 13-17, 2019.
[4] **Wei D**, Ahmad S, Wu Z, Cao X, Ren X, Li G, Shen D, Wang Q. "Morphological Simplification of Brain MR Images by Deep Learning for Facilitating Deformable Registration." MLMI 2019, Shenzhen, China, Oct 13, 2019.
[5] Xuan K, **Wei D**, Zhan Y, Wu D, Wang Q. "Reconstruction of Isotropic High-Resolution MR Image from Multiple Anisotropic Scans using Sparse Fidelity Loss and Adversarial Regularization." MICCAI 2019, Shenzhen, China, Oct 13-17, 2019.
[6] Huang P, Li D, Jiao Z, **Wei D**, Li D, Zhang D, and Shen D. "CoCa-GAN: Common-feature-learning-based Context-aware Generative Adversarial Network for Glioma Grading." MICCAI 2019, Shenzhen, China, Oct 13-17, 2019.
[7] Ge Y#, **Wei D#**, Xue Z, Wang Q, Zhou X, Zhan Y, and Liao S. "Unpaired Mr to CT Synthesis with Explicit Structural Constrained Adversarial Learning." ISBI 2019, Venice, Italy, 2019, pp. 1096-1099. (# equal contribution)
[8] Ren X, Huo J, Xuan K, **Wei D**, et al. "Robust brain MR segmentation for hydrocephalus images: hard and soft attention." ISBI 2020.
[9] Huang P, Li D, Jiao Z, **Wei D**, et al. "Common feature learning for brain tumor MRI synthesis and tumor segmentation by context-aware generative adversarial network." IEEE transactions on medical imaging (Under Review)

PROJECTS

Generative Model based Image Registration
The project aims at developing the generative model based registration. The generative models includes morphology simplification model, MR-to-CT model, inpainting model, and deformation field predication

model. This project is sponsored by Shanghai Jiao Tong University, University of North Carolina at Chapel Hill.

Heart Rate and Heart Rate Variability Measurement Using Face Videos

Developed the algorithm for measuring the heart rate and its variability via cameras. The project is sponsored by *China Scholarship Council*.

Computer Vision Based Mini UAV Indoor Navigation System

Developed a system to deliver the shippment automatically, including hardware and software. This project is ranked as the nationally outstanding project, and sponsored by *Ministry of Education in China*.

REWARDS

National Scholarship at Shanghai Jiao Tong University, Outstanding Graduates of Beihang Univeristy, Beijing Sanhao Student, Samsung Scholarship.

WORK EXPERIENCE

Zhangjiang Lab, Shanghai — Sep. 2020 - Now
Institute of Brain Science and Brain-Inspired Technology — *Visiting Researcher*

· Develop the brain fMRI analysis pipeline.

Huawei, Hangzhou — July 2020 - Sep. 2020
Intern — *Algorithm Engineer*

· Conditional GAN based visible and infrared image fusion.

Varian, Shanghai — Jan. 2020 - April 2020
Intern — *Software Engineer*

· Organ tracking in 4D-CT images via registration, including publishing patents and papers.

United Imaging Intelligence, Shanghai — July 2018 - Dec. 2018
Research Intern. — *Algorithm Engineer*

· Whole body MR-to-CT synthesis and MR-CT registration, including publishing patents and papers.

Shanghai Jiao Tong University, Shanghai — Feb. 2017 - June 2017
Computer Vision in Biomedical Engineering — *Teaching Assistant*

· Tutorial after class.

PROFESSIONAL SERVICES

Conference Reviews:

- MICCAI 2019, MICCAI 2020, MLMI 2020

Journal Reviews:

- Pattern Recognition
- IEEE Transactions on Medical Imaging (TMI)
- IEEE Transactions on Biomedical Engineering (TBME)
- IEEE Access