



Education

Huazhong University of Science and Technology

M.S.

MASTER IN SCHOOL OF ELECTRONIC INFORMATION AND COMMUNICATIONS, MC LAB

Aug. 2017 - Exp. Jun. 2020

- Advisor: **Xin Yang**, Professor, Huazhong University of Science and Technology

Huazhong University of Science and Technology

B.S.

BACHELOR IN SCHOOL OF ELECTRONIC INFORMATION AND COMMUNICATIONS

Aug. 2012 - Jun. 2016

- Major classes: Data Structure, Signal and Linear System, Computer Networks and Applications, Principles of Communications, etc.

Publication

CONFERENCE

- 1 **Yi Lin**, Jianchao Su, Xiang Wang, Xiang Li, Jingen Liu, Kwang-Ting Cheng, Xin Yang, **Automated Pulmonary Embolism Detection from CTPA Images using an End-to-End Convolutional Neural Network** *MICCAI 2019*
- 2 Zhiwei Wang, **Yi Lin**, Kwang-Ting Tim Cheng, Xin Yang, **StitchAD-GAN for Synthesizing Apparent Diffusion Coefficient Images of Clinically Significant Prostate Cancer** *BMVC 2018*
- 3 **Yi Lin**, Hong-Yu Zhou, Kai Ma, Xin Yang, Yefeng Zheng, **Seg4Reg Networks for Automated Spinal Curvature Estimation** *MICCAI 2019 workshop*

JOURNAL

- 4 Zhiwei Wang, **Yi Lin**, Kwang-Ting Tim Cheng, Xin Yang, **Semi-supervised mp-MRI Data Synthesis with StitchLayer and Auxiliary Distance Maximization**, Impact Factor: **8.880** *MedIA 2020*
- 5 Xin Yang (Advisor), **Yi Lin***, Zhiwei Wang, Kwang-Ting Tim Cheng, **Bi-modality Medical Image Synthesis using Semi-supervised Sequential Generative Adversarial Networks**, * Corresponding Author, Impact Factor: **4.217** *JBHI 2019*
- 6 Xin Yang (Advisor), **Yi Lin**, Jianchao Su, Xiang Wang, Xiang Li, Jingen Lin, Kwang-Ting Cheng, **A Two-Stage Convolutional Neural Network for Pulmonary Embolism Detection from CTPA Images**, Impact Factor: **4.098** *IEEE Access 2019*

SUBMITTED

- 7 **Yi Lin**, Luyan Liu, Kai Ma, Yefeng Zheng, **Seg4Reg+: A Local and Global Consistency Learning between Spine Segmentation and CobbAngle Regression** *MICCAI 2021*
- 8 Yanfei Liu, **Yi Lin***, Jingguang Liu, Guocai Liu, Kai Ma, Yefeng Zheng, **LE-NAS: Learning-based Ensemble with Neural Architecture Search for 3D Radiotherapy Dose Prediction**, *equal contribution *MICCAI 2021*
- 9 Yunqiao Yang, **Yi Lin**, Zhiwei Wang, Kai Ma, Xin Yang, Yefeng Zheng, **Improving by an Order of Magnitude via Multi-stage Cascaded CNNs for Vertebral Landmark Localization** *MICCAI 2021*
- 10 Yuexiang Li, Yanping Wang, Guang Lin, **Yi Lin**, Dong Wei, Qirui Zhang, Kai Ma, Guangming Lu, Zhiqiang Zhang, Yefeng Zheng, **Triplet-Branch Network with Prior-Knowledge Embedding for Fatigue Fracture Grading** *MICCAI 2021*
- 11 Qingsong Yao, Zecheng He, **Yi Lin**, Kai Ma, Yefeng Zheng, S. Kevin Zhou, **A Hierarchical Feature Constraint to Camouflage Medical Adversarial Attacks** *MICCAI 2021*

Competition

1. Automated Spinal Curvature Estimation.

MICCAI 2019 AASCE Challenge

IDEA & CODE

Jul. 2019 - Sept. 2019

- Sequential combining segmentation and regression network for spine Cobb Angle estimation.
- Employing unsupervised domain adaption method to ease the domain gap between training set and test set.
- **First Place** among 79 teams.

2. Cerebral Aneurysm Detection, Segmentation and Rupture Risk Estimation

MICCAI 2020 CADA Challenge

IDEA & CODE & MENTOR

Jul. 2020 - Sept. 2020

- **First Place** in CADA detection task. **First Place** in CADA segmentation task. **First Place** in CADA rupture risk estimation task.

3. Cerebral Aneurysm Detection and Segmentation

MICCAI 2020 ADAM Challenge

IDEA & CODE & MENTOR

Jul. 2020 - Sept. 2020

- **Second Place** in ADAM detection task. **Second Place** in ADAM segmentation task.

Reviewer

IEEE Trans. on Medical Imaging (TMI)

IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)

International Conference on Computer Vision (ICCV)

International Joint Conference on Artificial Intelligence (IJCAI)

Medical Image Computing and Computer Assisted Interventions (MICCAI)

Technical Skills

Coding **Python, C, C++, C#,** Pytorch, Tensorflow

Others **TOEFL 85, CET6,** LaTeX, Photoshop

Projects

1. Pulmonary Embolism Detection

MC Lab

IDEA & REFERENCE INVESTIGATION & CODING & PAPER WRITING

Sep. 2018 - Apr. 2019

- Automated pulmonary embolism detection from CTPA image using an **end-to-end CNN**.
- Proposing a detection network combines a **3D CNN** and **2D CNN** to guarantee the high sensitivity with acceptable false positive rate.
- The 3D CNN and 2D CNN are connected seamlessly by designing a **3D transformation subnet** to transform the 3D VOI into **2.5D representation**.
- Achieving SOA result, accepted by **MICCAI 2019, IEEE ACCESS 2019**.

2. Multi-modality MRI Synthesis

MC Lab

IDEA & CODING & PAPER WRITING

Sep. 2017 - Sep. 2018

- **Stitch-Layer** for high resolution image synthesis.
- **Hybrid Loss** for simultaneously synthesizing realistic and clinical-meaningful MRI.
- **Semi-Supervised Learning** for incomplete labeled data.
- **Sequential GAN** for multi-modality MRI synthesis in a coarse-to-fine manner.
- Promoting the performance of **downstream task** (e.g., classification).
- Achieving **SOTA** result and accepted by **BMVC 2018, JBHI 2019, Media 2020**.

Activities & Awards

2020 **Outstanding Graduates**, Huazhong University of Science and Technology

2019 **Merit Student**, Huazhong University of Science and Technology

2019 **National Scholarship**, Huazhong University of Science and Technology

2019 **Student Travel Award**, MICCAI

2016 **Outstanding Graduates**, Huazhong University of Science and Technology