

QUANDE LIU

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Address: Rm 1024, SHB, The Chinese University of Hong Kong, Shatin, Hong Kong

EDUCATION

The Chinese University of Hong Kong (CUHK)
Ph.D., Department of Computer Science and Engineering
Advisor: Prof. Pheng-Ann Heng & Prof. Qi Dou

08/2018 - Present
Expected graduation date: 07/2022

Zhejiang University (ZJU)
B.Eng., Electronic and Information Engineering.
★ Admitted to Mixed Class of **Chu Kochen Honors College (CKC)**.
GPA: 3.91/4.00

09/2014 - 08/2018

RESEARCH INTERESTS

My research interest lies in the interdisciplinary field of **medical image analysis** and **machine learning**, for improving the **public healthcare & medical diagnosis** with the potential of machine intelligence. Recently, I am exploring model generalization and robustness for wide applicability of AI models in complex clinical scenarios.

SELECTED PUBLICATIONS

- Federated Domain Generalization on Medical Image Segmentation via Episodic Learning in Continuous Frequency Space
Quande Liu, Cheng Chen, Jing Qin, Qi Dou, Pheng-Ann Heng
IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), 2021.
- Shape-aware Meta-learning for Generalizing Prostate MRI Segmentation to Unseen Domains
Quande Liu, Qi Dou, Pheng-Ann Heng
International Conference on Medical Image Computing and Computer Assisted Intervention (**MICCAI**), 2020.
- Semi-supervised Medical Image Classification with Relation-driven Self-ensembling Model
Quande Liu, Lequan Yu, Luyang Luo, Qi Dou, Pheng-Ann Heng
IEEE Transactions on Medical Imaging (**TMI**, **IF: 6.685**), 2020.
- MS-Net: Multi-Site Network for Improving Prostate Segmentation with Heterogeneous MRI Data.
Quande Liu, Qi Dou, Lequan Yu, Pheng-Ann Heng
IEEE Transactions on Medical Imaging (**TMI**, **IF: 6.685**), 2020.
- Federated Deep Learning for Detecting COVID-19 Lung Abnormalities in CT: A Privacy-preserving Multinational Validation Study.
Qi Dou, Tiffany Y So, Meirui Jiang, **Quande Liu**, Varut Vardhanabhuti, Georgios Kaissis, Zeju Li, et al.
npj Digital Medicine, Nature Publishing Group, 2021.
- Contrastive Cross-Site Learning With Redesigned Net for COVID-19 CT Classification
Zhao Wang, **Quande Liu**, Qi Dou
IEEE Journal of Biomedical and Health Informatics (**JBHI**, **IF: 5.223**), 2020.
- Deep Mining External Imperfect Data for Chest X-ray Disease Screening
Luyang Luo, Lequan Yu, Hao Chen, **Quande Liu**, Xi Wang, Jiaqi Xu, Pheng-Ann Heng
IEEE Transactions on Medical Imaging (**TMI**, **IF: 6.685**), 2020.
- Unpaired Multi-modal Segmentation via Knowledge Distillation
Qi Dou, **Quande Liu**, Pheng-Ann Heng, Ben Glocker
IEEE Transactions on Medical Imaging (**TMI**, **IF: 6.685**), 2020.

PATENT

- Method and device for detecting pulmonary nodule in computed tomography image, and computer-readable storage medium.
Qi Dou, **Quande Liu**, Hao Chen.
US Patent US20200005460A1, 2018.

EXPERIENCE

- **Im sight Technology, Shenzhen, China** 11/2017 - 05/2018
Research Intern
Research Topic: Lung nodule screening from CT imaging.
- **CUHK-SenseTime Joint Lab, Hong Kong, China** 07/2017 - 10/2017
Research Assistant
Advisor: Dahua Lin & Chen Change Loy
Research Topic: Object grasp for cognitive robots.

AWARDS & HONORS

Microsoft Research Asia (MSRA) PhD Fellowship Nomination Award (27 awardees in Asia region)	2020
The Outstanding Graduates Award, awarded by Zhejiang Province	2018
Zhejiang University Scholarship for Research and Innovation	2017
Zhejiang University Scholarship for Outstanding Students	2015,2016
Zhejiang University Academic Scholarship	2015,2016
Admitted to Chu Kochen Honors College at Zhejiang University	2014

TEACHING

CSCI3180 Principles of Programming Languages	Spring 2020
ENGG1110 Problem Solving by Programming	Fall 2019
ENGG1110 Problem Solving by Programming	Spring 2019
ENGG2020 Digital Logic and Systems	Fall 2018

PROFESSIONAL ACTIVITIES

Conference/Journal Reviews

- ◇ IEEE Conference on Computer Vision and Pattern Recognition (CVPR) 2021
- ◇ AAAI Conference on Artificial Intelligence (AAAI) 2021
- ◇ International Conference on Medical Image Computing and Computer-Assisted Intervention (MICCAI) 2020
- ◇ IEEE Winter Conference on Applications of Computer Vision (WACV) 2020
- ◇ IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)
- ◇ IEEE Transactions on Medical Imaging (TMI)
- ◇ Medical Image Analysis (MedIA)
- ◇ IEEE Transactions on Image Processing (TIP)
- ◇ Neurocomputing
- ◇ Computer Methods and Programs in Biomedicine (CMPB)