

Cheng XUE 薛澄

(Research Assistant Professor)

Email: xchengjlu@gmail.com

EDUCATION

2012 - 2017	PhD	The Hong Kong Polytechnic University
2008 - 2012	BEng	Jilin University

PERSONAL EXPERIENCES

2022.6 - current	Research Assistant Professor	Department of Health Technology and Informatics, The Hong Kong Polytechnic University
2017 - 2022	Postdoc Fellow	Department of Computer Science and Engineering, Chinese University of Hong Kong
2015 - 2016	Visiting Scholar	Department of Biomedical Engineering, Duke University

RESEARCH INTERESTS

- Medical image analysis
- Deep learning
- Artificial intelligence and healthcare
- Biomedical data analysis

PROFESSIONAL ACTIVITIES

Reviewer of high impact journal and conference.

Medical Image Computing and Computer Assisted Intervention (MICCAI'20-22)

Medical Imaging with Deep Learning (MIDL'21)

International Symposium on Biomedical Imaging (ISBI'21-22)

Conference on Medical Image Understanding and Analysis 2022 (MIUA 2022)

Medical Image Analysis (MedIA)

IEEE Transactions on Medical Imaging (TMI)

IEEE Journal of Biomedical and Health Informatics (JBHI)

BIBLIOGRAPHY

PUBLICATIONS

Cheng Xue, Lequan Yu, Pengfei Chen, Qi Dou, Pheng-Ann Heng. "Robust Medical Image Classification from Noisy Labeled Data with Global and Local Representation Guided Co-training" *IEEE Transactions on Medical Imaging* (2022). (IF=11.037, JCR Q1.)

Cheng Xue, Lei Zhu, Huazhu Fu, Xiaowei Hu, Xiaomeng Li, Hai Zhang, Pheng-Ann Heng, Global Guidance Network for Breast Lesion Segmentation in Ultrasound Images, *Medical image analysis*, 70, 101989 (2021). (IF=13.828, JCR Q1)

Cheng Xue, FH Tang, Christopher W.K. Lai, Lars J. Grimm, Joseph Y.Lo. "Multimodal Patient-Specific Registration for Breast Imaging Using Biomechanical Modeling with Reference to AI Evaluation of Breast Tumor Change." *Life* 11, no. 8 (2021): 747. (IF=3.251, JCR Q2.)

Cheng Xue, Qiao Deng, Xiaomeng Li, Qi Dou, and Pheng-Ann Heng. "Cascaded Robust Learning at Imperfect Labels for Chest X-ray Segmentation." In *International Conference on Medical Image Computing and Computer-Assisted Intervention*, pp. 579-588. Springer, Cham, 2020.

Xueying Shi, Qi Dou, **Cheng Xue**, Jing Qin, Hao Chen, and Pheng-Ann Heng. "An active learning approach for reducing annotation cost in skin lesion analysis." In *International Workshop on Machine Learning in Medical Imaging*, pp. 628-636. Springer, Cham, 2019.

Cheng Xue, Qi Dou, Xueying Shi, Hao Chen, and Pheng-Ann Heng. "Robust learning a noisy labeled medical images: Applied to skin lesion classification." In *2019 IEEE 16th International Symposium on Biomedical Imaging*, pp. 1280-1283. IEEE, 2019.

Cheng Xue, FH Tang*. "An adaptive patient specific deformable registration for breast images of positron emission tomography and magnetic resonance imaging using finite element approach" In: *Proceedings of SPIE*.

PATENTS

Pheng-Ann Heng, **Cheng Xue**, Qi Dou. "Robust machine learning for imperfect labeled image segmentation." U.S. Patent Application 17/005,120, filed March 3, 2022.

RESEARCH GRANTS

- Decoding the cognitive trajectory of Hong Kong SuperAgers: a six-year follow-up study, funded by CUHK Direct, as Co-investigator.
- A novel computational framework for optimizing transcranial brain stimulation model, funded by CUHK Direct Grant, as Co-investigator.
- AI-X: Artificial Intelligence for Chest X-ray Analysis: Towards Large-scale Data Screening and Manipulation, Innovation and Technology Commission (ITS/311/18FP), 2019.7.31 -2021.7, Amount: 3,127,830 HKD, as Participant.
- D-Lung: An Analytics Platform for Primary Lung Cancer Screening, Diagnosis and Management based on Deep Learning Technology, Innovation and Technology Commission (ITS/426/17FP), 2018.6.30-2020.6.30, Amount:4,470,450 HKD, as Participant.