



ONLINE SEMINAR 2022 SERIES

Department of Computer Science



Dr. Huazhu Fu

Senior Scientist
Institute of High Performance Computing
Agency for Science
Technology and Research (A*STAR), Singapore

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Date: 22 March 2022 (Tuesday)

⚠ Time: 5:00pm – 6:00pm

Registration: http://bit.ly/bucs-ereg

(*Zoom details will only be provided to registrants)

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Robust and Trustworthy Learning in Healthcare



ABSTRACT

During the past decade, deep learning has achieved great success in healthcare. However, most existing methods aim at model performance in terms of higher accuracy, which lacks the information reflecting the reliability of the prediction. It cannot be trustworthy for diagnosis making and even is disastrous for safety-critical clinical applications. How to build a reliable and robust healthcare system has become a focal topic in both academia and industry. In the talk, I will introduce several our recent works for robust and trustworthy learning in healthcare, including: privacy-preserving federated learning and trustworthy multi-modality learning in healthcare. Moreover, I also discuss some open challenges for trustworthy learning in healthcare.



BIOGRAPHY

Huazhu Fu is a senior scientist at Institute of High Performance Computing (IHPC), Agency for Science, Technology and Research (A*STAR). He received his Ph.D. from Tianjin University in 2013. Previously, He was a Research Fellow (2013-2015) in NTU, Singapore, a Research Scientist (2015-2018) in I2R, A*STAR, Singapore, and a Senior Scientist (2018-2021) in Inception Institute of Artificial Intelligence, UAE. His research interests include computer vision, machine learning, and AI in healthcare. He has authored/co-authored over 150 papers in top conferences/journals, which have been cited over 8000 times according to Google Scholar. He received the Best Paper Award from ICME 2021, and finalist of the Young Scientist Publication Impact Award in MICCAI 2021. He currently serves as an Associate Editor of IEEE Transactions on Medical Imaging (IEEE TMI), IEEE Journal of Biomedical and Health Informatics (IEEE JBHI), Scientific Reports, and IEEE Access. He also serves as an Area Chair/Senior-PC for MICCAI 2021, 2022, IJCAI 2021, and AAAI 2022, General Chair for MICCAI workshop on OMIA, and Organizer for ocular image series challenge. (personal page: https://hzfu.github.io/)