香港浸會大學
HONG KONG BAPTIST UNIVERSITY

DEPARTMENT OF
COMPUTER SCIENCE
計算機科學系

ONLINE SEMINAR
2021 SERIES

Department of Computer Science

Mr. Zitong Yu

PhD Candidate
University of Oulu, Finland

Register Now

Date: 2 November 2021 (Tuesday)
Time: 2:00pm – 3:00pm GMT+8 (HKT)
Registration: http://bit.ly/bucs-ereg
(*Zoom details will only be provided to registrants)

Non-Contact Human Sensing and Biometric Security

ABSTRACT

Contact-free human-centered AI applications attract more attentions during the COVID-19 pandemic. Recently, on one side, non-contact human vital sign measurement and activity understanding are important for applications like healthcare, HCI, affective computing, etc. On the other side, spoofing detection is vital for securing biometric recognition systems from presentation attacks. However, domain factors such as video quality, imaging scenarios, undesirable dynamics and even emerging unknown attacks influence the real-world performance a lot. How to learn intrinsic and generalized feature representation for these tasks is an interesting problem to further investigate. In this talk, I will introduce several state-of-art learning-based methods for facial video-based physiological signal measurement, human gesture/action recognition, and face presentation attack detection. Several novel deep operators as well as architectures are proposed for these three tasks, which are also promising for broader AI tasks.

BIOGRAPHY

Zitong Yu is a final-year PhD candidate from University of Oulu, Finland. During August to November 2021, he was a visiting scholar at Torr Vision Group, University of Oxford, UK. Before that, he received the M.S. and B.E. degrees from University of Nantes, France in 2016 and Guangdong University of Technology in 2014, respectively. He has published research works on top-tier avenues such as TPAMI, TIP, CVPR, ICCV, ECCV, IJCAI, AAAI, etc. He won the 1st Place in the ChaLearn Multi-Modal Face Anti-spoofing Attack Detection Challenge with CVPR'20, and achieved the 2nd Place on Action Recognition Track of ECCV'20 VIPriors Challenges. He co-organized the 3D High-Fidelity Mask Face Presentation Attack Detection Challenge with ICCV'21 and the first Challenge on Remote Physiological Signal Sensing with CVPR'20. His ICCV'19 paper on remote heart rate measurement has granted IEEE Finland Section Best Student Conference Paper Award 2020.

ENQUIRY

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