

DEPARTMENT OF COMPUTER SCIENCE

SEMINAR

2024 SERIES

Computer Vision: A Journey of Pursuing 3D World Understanding

DATE & TIME

19 Jan 2024 (FRI) 2:30 - 3:30 PM

VENUE

WLB 211, The Wing Lung Bank Building for Business Studies, Shaw Campus



PROF. XIAOMING LIU

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ABSTRACT

The real world we are living in is composed of 3D objects. When a camera takes a picture or video, many of the 3D information inevitably get lost due to the camera projection. As one of the most active fields in AI, computer vision aims to develop algorithms that can derive meaningful information from the visual content. One fundamental quest of computer vision is to recover the 3D information, and thus enables a faithful 3D understanding of the world through the lens of the camera. In this talk, I will share some of our experiences in pursuing the 3D world understanding, addressing problems such as 3D reconstruction, 3D detection, depth estimation, velocity estimation, etc. The solutions to these problems have been applied to applications including biometrics, autonomous driving, and digital human/face. In the end, I will also briefly overview other research efforts in the Computer Vision Lab at Michigan State University, such as anti-spoofing, anti-deepfake, AIGC for vision tasks, etc.



**SPEAKER'S
BIOGRAPHY**



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