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Wei Shen is a tenure-track Associate Professor at the Artificial Intelligence Institute, Shanghai Jiao Tong University since October 2020. Before that, he was an Assistant Research Professor at the Department of Computer Science, Johns Hopkins University. His research interests lie in the fields of computer vision, machine learning, deep learning, and medical image analysis, particularly in shape-based object representation and detection, deep learning algorithms under various learning paradigms and their application to medical image analysis. He has over 50 peer-reviewed publications in computer vision and machine learning related areas, including IEEE Trans. PAMI, IEEE Trans. Image Processing, IEEE Trans. Medical Imaging, NIPS, ICML, ICCV, CVPR, ECCV and MICCAI. He is an Associate Editor for Neurocomputing and will serve as an Area Chair for CVPR 2022 and a Senior Program Committee (SPC) Member for AAAI 2022.

Speech Title: “Object Segmentation in Images: New Challenges and Methods”

Abstract: Object segmentation is a fundamental problem in Computer Vision and Image Processing. It has wide potential applications in autonomous driving, robotic vision, intelligent surveillance, and medical imaging diagnostics. With the rapid development of deep learning, deep learning-based object segmentation techniques have achieved considerable progresses. So what are the new challenges for current object segmentation techniques? In this talk, we summarize the challenges in object segmentation from fully-supervised and weakly-supervised perspectives, including huddled instances and unknown categories, and introduce our recent works to provide the solutions.