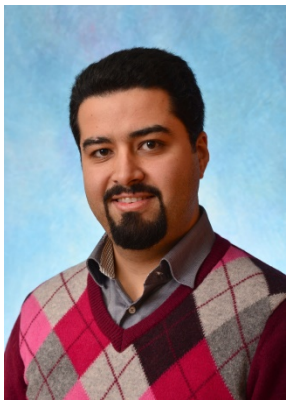
Special Session 5: 3D Visual Representation and Understanding

The advances of computing techniques, graphics hardware, and networks have witnessed the wide applications of 3D data in various domains, such as 3D graphics, entertainment, medical industry and 3D model design. The proliferation of such applications lead to large scale 3D visual data, while effective 3D processing tools to manipulate these data are still at their infancy. Recent years have witnessed the rapid progress of deep neural networks on 3D visual analysis, such as 3D visual representation, recognition, reconstruction, and content understanding, which have wide applications in unmanned driving, medical diagnosis assistance, and virtual reality. This is a new and emerging topic cross several research areas, such as computer vision, multimedia computing, pattern recognition, image processing and computing graphics. This situation encourages the research on 3D visual representation and understanding and attracts much attention in both the academe and industry. However, there is still a long way towards effective 3D semantic understanding and applications. The primary objective of this special session fosters focused attention on the latest research progress in the 3D visual representation and understanding area and seeks original contribution of works which addresses the challenges from 3D representation, recognition, semantic analysis and applications in unmanned driving and medical field.

Organizers:

Yue Gao
Tsinghua University, China



Ehsan Adeli
Stanford University, USA