Implicit Functions for 3D Reconstruction and Neural Rendering

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ABSTRACT

Implicit functions have served as a widely used representation for both 2D and 3D objects in computer graphics, playing a significant role in the early development of the field. In recent years, with the advent of 3D deep learning and the rapid growth of neural rendering techniques, the implicit representation of 3D shapes has once again gained substantial attention. In this talk, I will highlight several recent research projects conducted by myself and my collaborators in the areas of 3D reconstruction and neural rendering. Additionally, I will draw from personal experiences to delve into the potential future advancements in this dynamic field.

BIOGRAPHY

Dr. Ying He is an Associate Professor in the School of Computer Science and Engineering and the Director of the Centre for Augmented and Virtual Reality at Nanyang Technological University. His research interests are in geometric computation and analysis, applied to various engineering fields, including computer graphics, vision, computer-aided design, multimedia and wireless sensor networks. He is a regular member of technical program committees for major conferences on geometric modeling and is on the editorial board of IEEE Transactions on Visualization and Computer Graphics, Computer Graphics Forum (Wiley) and Computational Visual Media (Springer). Dr. He has also served as the General/Program Co-Chair of SMI ('22), SPM ('22 & '23), GMP ('14 & '21) and CVM ('20). For more information, please visit https://personal.ntu.edu.sg/yhe/

All are welcome!

In case of questions, please contact Prof. HOU Junhui at jh.hou@cityu.edu.hk, or visit the CS Departmental Seminar Web at https://www.cs.cityu.edu.hk/events/cs-seminars/recent-cs-colloquiums.