



Packing Urban Scenes into Neural Radiance Field



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📍 在线讲座



Abstract

3D city modeling is an active research realm, and has been drawing increasing attention these years, as the concept of digital twin and metaverse arises. As a foundational component, 3D city modeling provides the spatial and visual context for simulating and analyzing urban environments, and for users to explore, interact, and collaborate. To enable such experience, several key aspects need to be taken into consideration, including realism and detail, data integration, dynamic contents, scalability and accessibility. In this presentation, I will discuss the potential of using neural radiance fields to represent 3D urban scenes, leveraging different scene representations and data structures, allowing user-controlled high-quality novel view synthesis, as well as flexible scene editing and creation choices.

Biography

Yuanbo Xiangli recently received her Ph.D in Multimedia Lab, Information Engineering, CUHK, supervised by Prof. Dahua Lin. She has been co-leading the INTERN-LandMark project in Shanghai AI Lab from 2022 and is currently an intern research scientist at Adobe. Her research interest lies in 3D computer vision and generative modeling. She has been working on photorealistic and efficient large-scale urban scenes reconstruction, manipulation and generation based on multisource data, including satellite imagery, oblique photography, street view panoramas and urban planning information.