Ruilong Li

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I am a third-year Ph.D. student at UC Berkeley, advised by Angjoo Kanazawa. My current research interests widely spread in Computer Vision & Graphics & Machine Learning, especially on the tasks of generation and reconstruction in the 3D world via information from 2D images.

EDUCATION

Ph.D - University of California, Berkeley **Aug. 2021 – Present**
Computer Science *Berkeley, USA*

M.Eng - Tsinghua University **Aug. 2016 – May 2019**
Computer Science and Technology *Beijing, China*

B.Sc - Tsinghua University **Aug. 2012 – May 2016**
Mathematics and Physics *Beijing, China*

RESEARCH POSITIONS

Research Intern, NVIDIA Research **May 2023 – Present**
Working with Francis Williams and Sanja Fidler *Santa Clara, USA*

Research Intern, Meta Reality Lab **May 2021 – Dec 2021**
Working with Christoph Lassner *Sausalito, USA*

Research Intern, Google Research **May 2020 – Jan. 2021**
Working with Shan Yang and Angjoo Kanazawa *Mountain View, USA*

Research Assistant, USC Institute for Creative Technologies **Aug 2019 – May 2021**
Working with Hao Li *Los Angeles, USA*

ACADEMIC SERVICES

Reviewer: CVPR, ICCV, ECCV, ACCV, WACV, 3DV, EuroGraphics, Siggraph Asia, ToG, TPAMI, TIP

PUBLICATIONS

13. **Li, R.**, Gao H, Tancik M and Kanazawa, A. "Nerfacc: Efficient sampling accelerates nerfs." In *International Conference on Computer Vision (ICCV)*, 2023. [link]
12. Xu, C., Wu, B., Hou, J., Tsai, S., **Li, R.**, Wang, J., Zhan, W., He, Z., Vajda, P., Keutzer, K. and Tomizuka, M., 2023. "NeRF-Det: Learning Geometry-Aware Volumetric Representation for Multi-View 3D Object Detection." In *International Conference on Computer Vision (ICCV)*, 2023. [link]
11. Tancik, M., Weber, E., Ng, E., **Li, R.**, Yi, B., Wang, T., Kristoffersen, A., Austin, J., Salahi, K., Ahuja, A. and Mcallister, D., "Nerfstudio: A modular framework for neural radiance field development." In ACM SIGGRAPH 2023 Conference Proceedings (pp. 1-12) 2023. [link]
10. Gao, H., **Li, R.**, Tulsiani, S., Russell, B. and Kanazawa, A. "Monocular dynamic view synthesis: A reality check." In *Conference and Workshop on Neural Information Processing Systems (NeurIPS)*, 2022. [link]
09. **Li, R.**, Tanke, J., Vo, M., Zollhöfer, M., Gall, J., Kanazawa, A. and Lassner, C. "TAVA: Template-free animatable volumetric actors." In *European Conference on Computer Vision (ECCV)*, 2022. [link]
08. Yu, A., **Li, R.**, Tancik, M., Li, H., Ng, R., and Kanazawa, A. "Plenoctrees for real-time rendering of neural radiance fields." In *International Conference on Computer Vision (ICCV)*, 2021. [link]
07. **Li, R.***, Yang, S.*, Ross, A. D. and Kanazawa, A., "AI Choreographer: Music Conditioned 3D Dance Generation with AIST++." In *International Conference on Computer Vision (ICCV)*, 2021. [link]
06. **Li, R.***, Xiu, Y.*, Saito, S., Huang, Z., Olszewski, K. and Li, H., "Monocular real-time volumetric performance capture." In *European Conference on Computer Vision (ECCV)*, 2020. [link]
05. **Li, R.**, Olszewski, K., Xiu, Y., Saito, S., Huang, Z., and Li, H., "Volumetric human teleportation." In *ACM SIGGRAPH Real-Time Live!*, 2020. [link]

04. **Li, R.***, Bladin, K.*, Zhao, Y.*, Chinara, C., Ingraham, O., Xiang, P., Ren, X., Prasad, P., Kishore, B., Xing, J. and Li, H., "Learning formation of physically-based face attributes." In *Computer Vision and Pattern Recognition (CVPR)*, 2020. [link]
03. Wu, X., **Li, R.**, Zhang, F.L., Liu, J.C., Wang, J., Shamir, A. and Hu, S.M., 2019. "Deep portrait image completion and extrapolation." IEEE Transactions on Image Processing, 29, pp.2344-2355. [link]
02. Zhang, S.H., **Li, R.**, Dong, X., Rosin, P., Cai, Z., Han, X., Yang, D., Huang, H. and Hu, S.M., "Pose2seg: Detection free human instance segmentation." In *Computer Vision and Pattern Recognition (CVPR)*, 2019. [link]
01. Wang, M., Yang, G.Y., **Li, R.**, Liang, R.Z., Zhang, S.H., Hall, P.M. and Hu, S.M., "Example-guided style-consistent image synthesis from semantic labeling." In *Computer Vision and Pattern Recognition (CVPR)*, 2019. [link]

AWARDS & HONORS

BAIR Research Ignition Award, UC Berkeley **2021**

Best Show Award, ACM SIGGRAPH **2020**
– *"Volumetric human teleportation", Siggraph Real-time Live!*

Best Demo Award, China Multimedia Conference **2017**

Kwang-Hua Scholarship, Tsinghua University **2014**

National Top 200 (0.04%), Chinese Physics Olympiad (CPhO) **2012**

INVITIED TALKS & INTERVIEWS

EpicGames Research invited talk **Jun. 2023**
– *"Reconstructing Dynamic Objects from Video Captures via Neural Rendering"*

Tencent AI Lab invited talk **Dec. 2022**
– *"Acceleration Techniques and Toolbox for Neural Radiance Field"*

Adobe Research invited talk **Sep. 2021**
– *"Learning to Digitize Human Performance"*

MPI invited talk **Feb. 2021**
– *"AI Choreographer: Learn to dance with AIST++" (link)*

USC Viterbi Magazine interview **Jan. 2021**
– *"Connecting People in a Distanced World" (link)*

ACM SIGGRAPH interview **Oct. 2020**
– *"We're One Step Closer to Consumer-accessible Immersive Teleportation" (link)*