

Linyi Jin

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Education

University of Michigan <i>Ph.D. in CSE, advised by David Fouhey</i>	Michigan, USA 2021–
University of Michigan <i>M.S. in Robotics</i>	Michigan, USA 2019–2021
University of Michigan <i>B.S.E. in Computer Science, Summa Cum Lauda</i>	Michigan, USA 2017–2019
Shanghai Jiao Tong University <i>B.S.E. in Mechanical Engineering.</i>	Shanghai, China 2015–2019

Publication (* indicates equal contribution)

Planar Surface Reconstruction from Sparse Views

Linyi Jin, Shengyi Qian, Andrew Owens, David F. Fouhey
arXiv 2021

- o Project Page: <https://jinlinyi.github.io/SparsePlanes/>
- o Given two RGB images with an unknown relationship, our system produces a coherent planar surface reconstruction of the scene in terms of 3D planes, plane correspondence, and relative camera pose.

Associative3D: Volumetric Reconstruction from Sparse Views

*Shengyi Qian**, *Linyi Jin**, *David F. Fouhey*
ECCV 2020.

- o Project Page: <https://jasonqsy.github.io/Associative3D/>
- o Proposed a new approach that estimates reconstructions, distributions over the camera/object and camera/camera transformations, as well as an inter-view object affinity matrix.

Inferring Occluded Geometry Improves Performance When Retrieving an Object from Dense Clutter

*Andrew Price**, *Linyi Jin**, *Dmitry Berenson*
ISRR, 2019

- o Project Page: <https://jinlinyi.github.io/mps.html>
- o Augmented a manipulation planner for cluttered environments with a state-of-the-art RGB-D segmentation and constructed a 3D reconstruction perception pipeline to reduce the amount of occluded space to explore.

Work Experience

Adobe Research <i>Research Intern in Computer Vision</i>	San Jose, CA 2021.5–
University of Michigan <i>Instructional Aide for EECS 442 Computer Vision</i>	Ann Arbor, MI 2019.1–2019.4

Research Experience

Fouhey AI Lab, University of Michigan <i>Graduate Student Research Assistant (GSRA), Advisor: Prof. David Fouhey.</i>	Ann Arbor, MI 2019.5–2021.4
Autonomous Robotic Manipulation Lab (ARM Lab), University of Michigan <i>Independent researcher, Advisor: Prof. Dmitry Berenson, Sponsor: Toyota Research Institute.</i>	Ann Arbor, MI 2018.4–2019.4
Michigan Vision & Learning Lab (UMich-vl), University of Michigan <i>Undergraduate research assistant, Advisor: Prof. Jia Deng.</i>	Ann Arbor, MI 2018.5–2018.8