2021 ICCV OCTOBER 11-17 VIRTUAL

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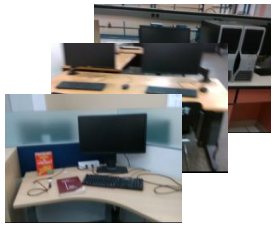
Code available at:
https://tinyurl.com/euuc443t

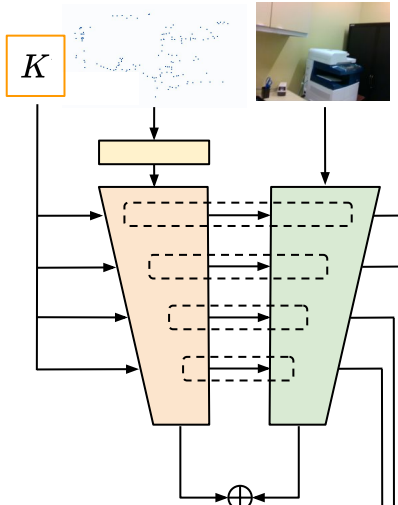
UCLAVISIONLAB

Training Set

Intel RealSense

VOID





Calibrated Backprojection Network (KBNet)

Sparse-to-dense learns dense or quasi dense representation from sparse point cloud

Calibrated Backprojection (KB) layers maps camera intrinsics, input image, and the imputed depth onto the 3D scene

Results in a spatial Euclidean 3D positional encoding of the image

Allows **different** calibration to be used at inference time to improve generalizability

This work was supported by by ARL W911NF-20-1-0158 and ONR N00014-17-1-2072.

Testing Set

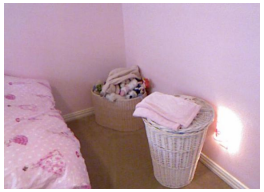
Intel RealSense

VOID

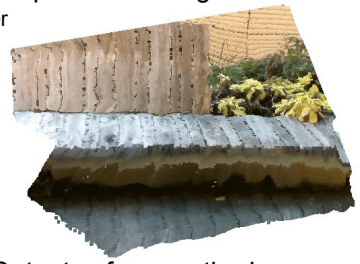
Testing Set

Microsoft Kinect

NYU v2



Outputs of existing work



Outputs of our method