Appendices

In the following, we provide additional discussion on "3D Feature Fields" (Sec. A), implementation details (Sec. B), more quantitative and qualitative results and analysis (Sec. C). We also discuss the limitations of Feat2GS in Sec. D. Please check the webpage for an overview of our framework and more results.

A. 3D Feature Fields

Beyond modeling the appearance, 3D neural fields [100] (*e.g.*, NeRF [62], 3DGS [41]) can also model features, by aggregating 2D features extracted from multiple views into a 3D canonical frame. The feature extractors can either be learned from data [81, 117] in an end-to-end manner, or be off-the-shelf Visual Foundation Models (VFMs), such as DINO [9], CLIP [70], Stable Diffusion [76], SAM [45, 74], and LSeg [51]. Different VFMs equip the 3D feature field with various capabilities: CLIP, and LSeg, which connect language with images, are used by several works [42, 48, 68, 91, 118] to enable text-based querying and editing. SAM, which truly learns the concept of "object", has been used for grouping [44, 109], segmentation [69, 118], and 3D scene understanding [109, 118]. Meanwhile, the 3D feature fields distilled from DINO and SD show promising cross-instance and cross-frame consistency, as leveraged by FeatureNeRF [108] and N3F [88] for various downstream tasks, such as keypoint transfer, co-segmentation, and video-based object retrieval. Additionally, DINO is also used by LERF [42] and DFFs [48] to regularize CLIP features for finer decomposition.

What sets Feat2GS apart from these 3D feature field works, is their assumption of 3D-awareness and cross-view feature correspondence of VFMs, while Feat2GS questions this: Are they truly 3D-aware? If so, to what extent? Does the 3D-awareness come from color or shape? How can it be improved? Feat2GS provides a unified and neat analysis framework to address these questions, using VFM features for novel-view synthesis, instead of optimizing an additional 3D feature field to align with the 3D radiance field.

B. Implementation Details

Feat2GS is implemented with PyTorch [67] and gsplat [110]. For fair probing, images are resized to 512 for VFM feature extraction, reduced to 256 channels with PCA, then the feature map resolution is upsampled back to 512. We use a 2-layer ReLU MLP for g_Θ with 256-dimensional hidden units. Adam optimizer is used to optimize the parameters of MLP, 3D Gaussians, and cameras. At the warm start stage, we optimize the MLP parameters for 1K iterations with a learning rate that starts at 1×10^{-2} and decays exponentially to 1×10^{-4}. After this stage, optimization continues for another 7K iterations. We follow the learning rate strategy of vanilla 3DGS [41]. For the MLP part, we maintain the original ratio but reduce the learning rate by an order of magnitude. To optimize the cameras, the learning rate starts at 1×10^{-4} and decays exponentially to 1×10^{-6} at 1K iteration. The DUST3R [95] checkpoint at 512 resolution initializes the point clouds and camera parameters. Photometric loss is computed at the original image resolution. Adaptive density control [41] is omitted throughout the optimization process. All experiments are conducted on a single NVIDIA GeForce RTX 4090 GPU.

Feat2GS evaluates a total of 11 models, as listed below:

- **Raw Image Feature**. IUVRGB includes image index (I), pixel coordinates (UV), and colors (RGB), serving as a baseline for comparison.
- **Supervised 3D VFMs**. DUST3R [95], MASt3R [50] and MiDaS [71] are trained with pointmap regression, matching, and depth estimation objective using 3D datasets.
- **Self-supervised 2D VFMs**. DINO [9] and DINOv2 [65] are trained with discriminative self-supervised objective using 2D datasets without annotations.
- **Supervised 2D VFMs**. SAM [45] and CLIP [70] are trained with segmentation and contrastive objective using 2D datasets and corresponding annotations.
- **Distilled 2D VFMs**. RADIO [73] merged DINOv2, SAM, and CLIP via model distillation on 2D data.
- **Image-reconstruction-based 2D VFMs**. MAE [34] and Stable Diffusion (SD) [76] are trained with Mean Square Error (MSE) and denoising objective using 2D datasets to reconstruct images in pixel and feature space.

C. Additional Results

Visualization of Depth and Normal. In Sec. 4.3, we identify the top four performers in **G**eometry mode as RADIO $>$ MASt3R $>$ DUSt3R $>$ DINO, while Stable Diffusion (SD) performs the worst, exhibiting broken geometry. We then present qualitative results of geometry with expected depth and normal rendering in Fig. R.6. Additionally, we show the 2.5D renderings of Feat2GS application baselines in Fig. R.7, both illustrating the strong correlation between NVS and depth/normal 2.5D metrics.

Feature Upsampling *vs*. Fine-tuning. As discussed in Sec. 5, the low-resolution features extracted from VFM encoders limit Feat2GS application baselines in rendering high-frequency details. We then compare two solutions to address this: feature upsampling (using VFM feature upsampler [26] to improve the feature resolution) and feature fine-tuning (optimizing features during the warm-start stage). As shown in Fig. R.8 and Tab. R.1, upsampling offers little improvement, while feature fine-tuning yields significantly better results. Similar fine-tuning performance across various VFM features shows that fine-tuning increases resolution

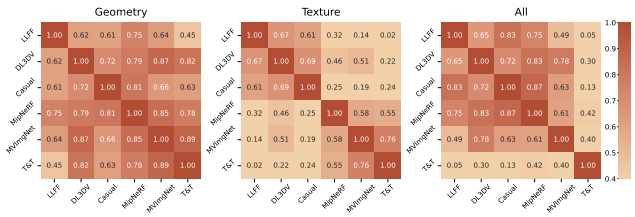


Figure R.1. **Performance correlations across different datasets.** In **T**exture mode, the first three datasets (indoor, small-scale) and last three (outdoor, large-scale) show internal correlations but little between groups. In **A**ll mode, the T&T dataset, with the highest complexity and widest view range, correlates minimally with others. These variations highlight the necessity of evaluating on diverse data. Feat2GS, removes 3D ground truth requirements, enabling diverse capture evaluation and reducing bias.

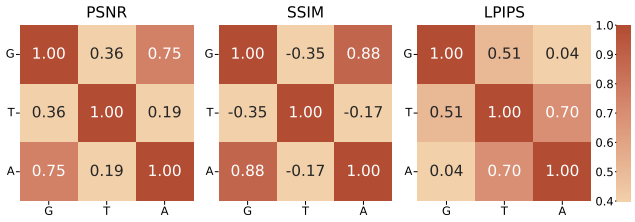


Figure R.2. **Performance Correlations of GTA across All Datasets.** The **A**ll mode correlates strongly with **G**eometry mode in PSNR and SSIM (primarily reflect structural consistency), and is closely related to **T**exture mode in LPIPS (commonly used to assess image sharpness), suggesting an optimal **A**ll mode depends on both high-performing **G**eometry and **T**exture mode.

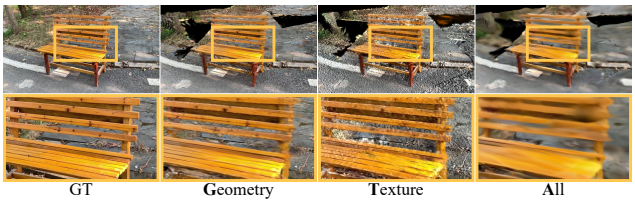


Figure R.3. **GTA Modes Comparison for the Same Region.** We present novel view synthesis of GTA modes using RADIO features. **T**exture mode shows broken structures as it excludes VFM features for 3DGS geometry regression, while **A**ll mode is blurrier than **G**eometry mode due to reliance on VFM features for color regression. This highlights that the blurriness in the **A**ll mode arises from the lack of texture awareness in VFMs.

and enriches embedded information, allowing high-quality reconstruction with any well-initialized features.

Visualization of Two Geometry Awareness Attributes. We provide qualitative examples in Fig. R.9 to visualize two attributes of geometry awareness. Position $\boldsymbol{x}$ awareness is highlighted by the sharpness of readout details and edges, while covariance Σ awareness reflects in plane flatness.

Zero123 Outperforms SD in Objaverse-like Scenes. While Stable Diffusion (SD) performs poorly in most metrics due to its lack of multi-view consistency, does Zero123, which fine-tunes SD on Objaverse [19] multi-view dataset, achieve better cross-view consistency? As shown in Tab. R.2, Zero123 excels in Objaverse-like simple scenes (LLFF) but struggles with complex scenarios (Tanks and Temples), which might be attributed to catastrophic forgetting [46].

	All Datasets								
	Geometry			**T**exture			**A**ll		
Feature	PSNR↑	SSIM↑	LPIPS↓	PSNR↑	SSIM↑	LPIPS↓	PSNR↑	SSIM↑	LPIPS↓
DINOv2	19.59	.6406	.3364	18.03	.5951	.3291	19.50	.6388	.3760
DINOv2$^+$	19.67	.6480	.3202	18.10	.5950	.3291	19.58	.6443	.3894
DINOv2*	19.78	.6552	.2962	18.18	.5968	.3232	19.80	.6614	.3247
DINO	19.63	.6452	.3256	18.03	.5961	.3282	19.55	.6427	.3793
DINO$^+$	19.72	.6485	.3207	18.03	.5941	.3291	19.64	.6465	.3839
DINO*	19.74	.6557	.2918	18.09	.5949	.3235	19.69	.6630	.3154
CLIP	19.61	.6436	.3331	18.10	.5947	.3289	19.50	.6416	.3832
CLIP$^+$	19.68	.6466	.3222	18.09	.5941	.3286	19.63	.6468	.3842
CLIP*	19.70	.6540	.2959	18.19	.5962	.3242	19.67	.6599	.3199

Table R.1. **Feature Upsampling$^+$ *vs*. Fine-tuning*.** We report a quantitative comparison of Feat2GS application baselines between feature upsampling using the recent VFM feature upsampler [26] and feature fine-tuning during the warm-start stage. While feature upsampling offers some benefits, fine-tuning achieves significantly higher improvement, particularly in the LPIPS metric.

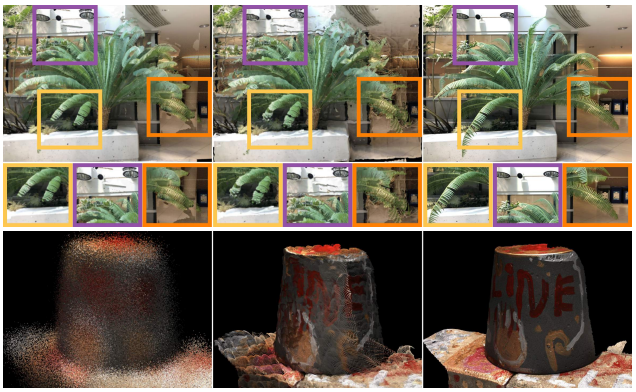


Figure R.4. **Failure Case.** Feat2GS can handle noisy initialization pointcloud (bottom row), but it struggles when the initialization pointcloud contains significant outliers (top row), *e.g.*, severely displaced branches (yellow), misplaced lamps (purple), and missing parts of branchs (orange). These prevent plausible pointcloud readouts, even with the best geometry-aware VFM feature, RADIO.

DINO captures geometry well but PE artifacts hinder. In Sec. 4.3, we observe that DINO features capture geometry well, completely reconstructing the vehicle front (Fig. 6) and wheel (Fig. 7a). In contrast, DINOv2 exhibits floating artifacts and distorted structures, likely caused by positional embedding (PE) artifacts noted in recent research [104, 105], as shown in Fig. 7b. We observe that the artifacts in DINOv2's features lead to degraded performance—an issue that becomes apparent when using a 2-layer MLP but is masked by the DPT head [72] utilized in prior work [22]. This explains why DINO outperforms DINOv2 in Feat2GS, but the

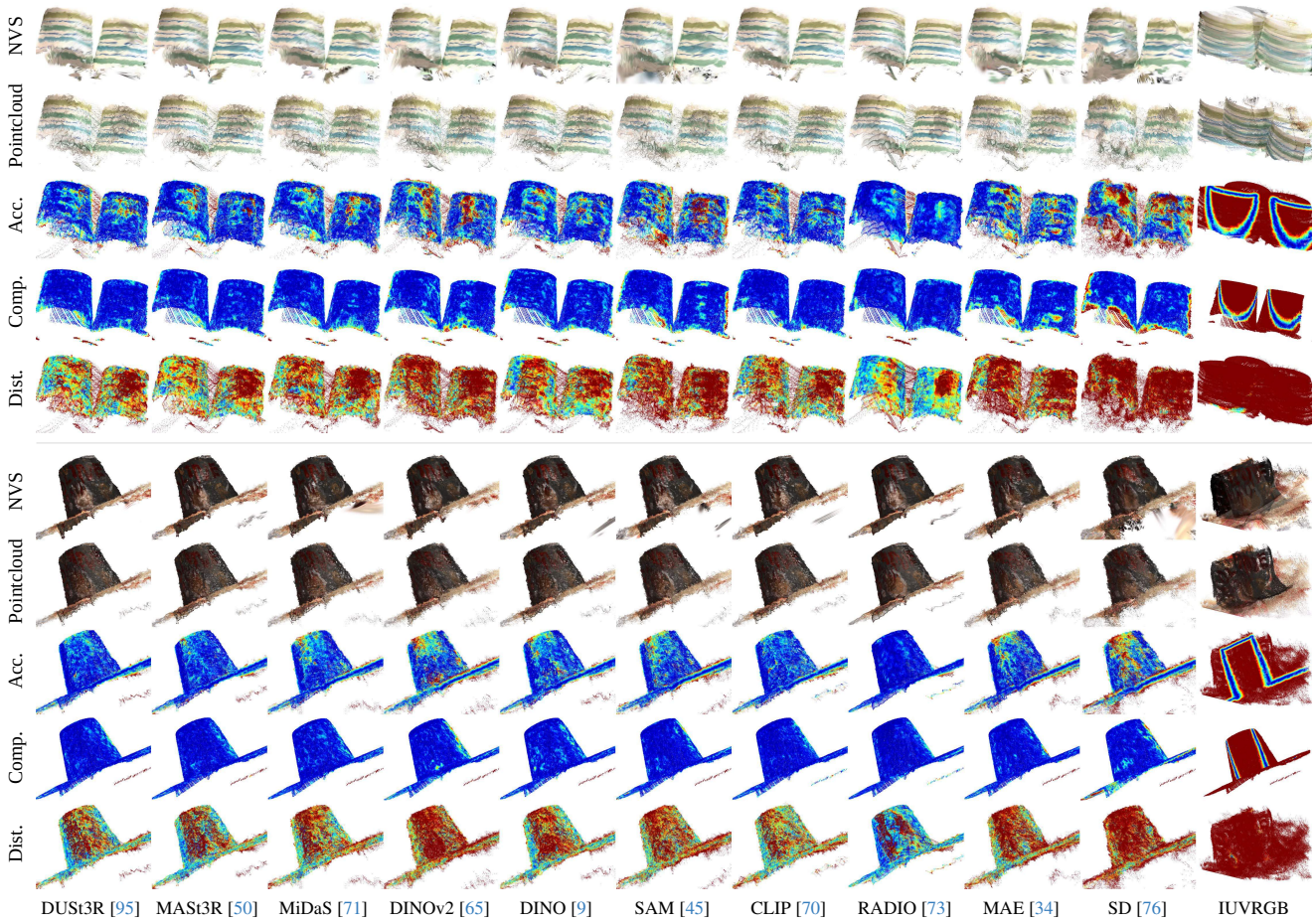


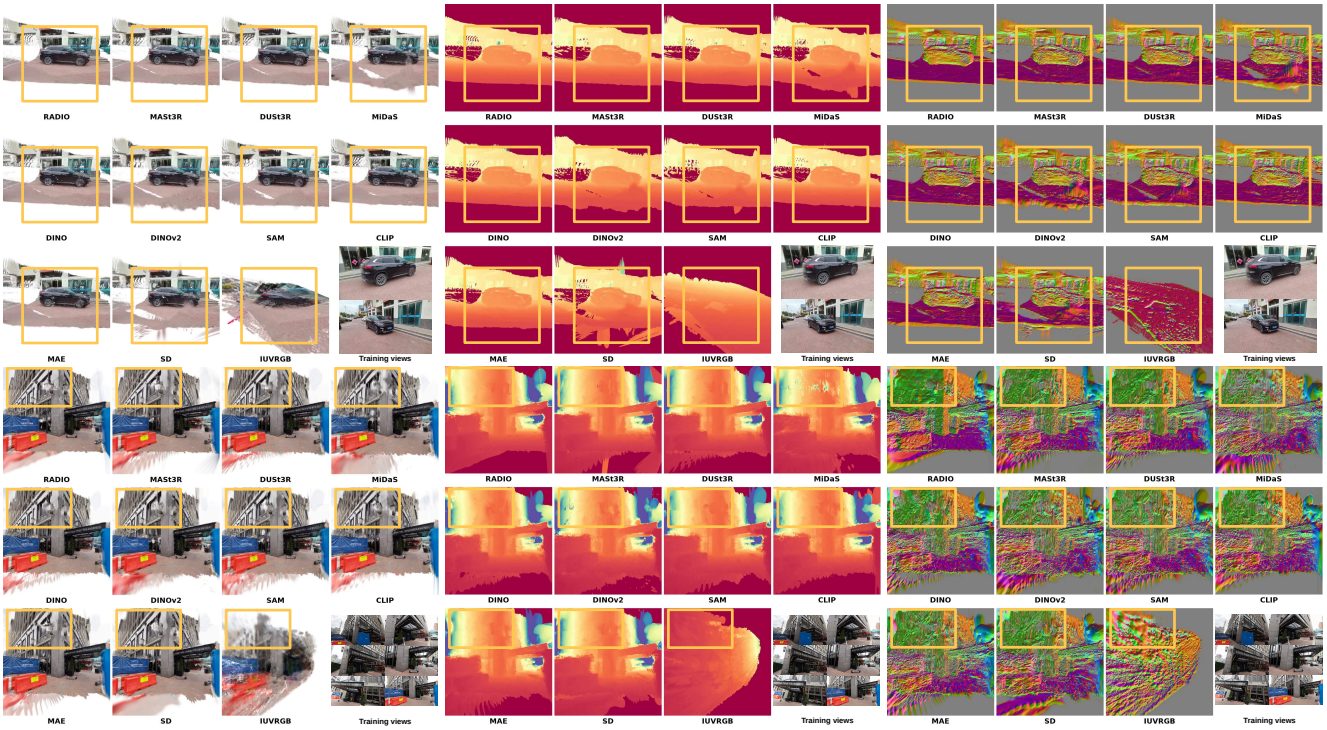
Figure R.5. **Novel View Synthesis as Proxy Task to Assess 3D.** We present qualitative examples from the DTU dataset, including NVS, Pointcloud (readout 3DGS positions), Accuracy (smallest distance from a readout point to ground-truth), Completeness (smallest distance from a ground-truth point to a readout point), and Distance (based on ground-truth point matching). Results show that NVS quality aligns with 3D metrics, proving its reliability as an indicator for 3D assessment. RADIO performs best, SD worst, with IUVRGB as a reference. **Zoom in** or check our webpage to see more details.

opposite occurs in Probe3D [22] and suggests that while DPT can mitigate this issue, it persists and requires solutions such as registration [18], denoising [105], and 3D-aware training [113, 116] to be fundamentally addressed.

Texture Benefits from Image-Matching-Based Training. Both DUSt3R and MASt3R utilize CroCo [98], pre-trained through cross-view completion similar to MAE [34], enabling DUSt3R and MASt3R to exhibit texture awareness. But why does MASt3R outperform DUSt3R on **T**exture mode (see Fig. 6)? One possible explanation is that MASt3R incorporates an additional image matching loss, promoting better awareness of fine-grained textures.

D. Limitations and Future Works

Feat2GS has several limitations. First, Feat2GS requires initialization of camera pose and pointclouds estimated by unconstrained stereo reconstructor [50, 92, 115]. While existing methods, DUSt3R [95] in our case, are robust for initialization, failures sometimes occur. Although Feat2GS can handle noisy initialization pointcloud, it struggles with those containing significant outliers, as shown in Fig. R.4. An exciting direction is to remove this dependence by leveraging VFM features to initialize poses [66] and pointcloud [8]. Second, Feat2GS is designed for controlled settings where scenes are captured in a short time frame under constant lighting. This limits its ability to handle long-term, in-the-wild datasets, where images might be captured hours or years apart, such as internet photo collections of landmarks [84, 90]. Many works [15, 49, 58, 101, 114] show that gradients from differentiable rendering are helpful in this case. Extending Feat2GS with these unconstrained formulations could lead to lifelong in-the-wild probing. Lastly, due to its reliance on 3D Gaussian Splatting, Feat2GS is currently limited to static scenarios. This is a reasonable assumption for evaluation in multi-view image collections, but restricts assessment in dynamic videos. 4D Gaussian Splatting [56, 94] may be used to overcome this limitation.



(a) RGB Renderings (b) Expected Depth Renderings (c) Expected Normal Renderings

Figure R.6. **Novel View Synthesis of RGB Correlates with Depth and Normal.** We present qualitative examples, including RGB renderings, expected depth renderings, and expected normal renderings, of **G**eometry mode with different VFMs. This demonstrates that the NVS quality of Feat2GS probing results closely aligns with 2.5D metrics.

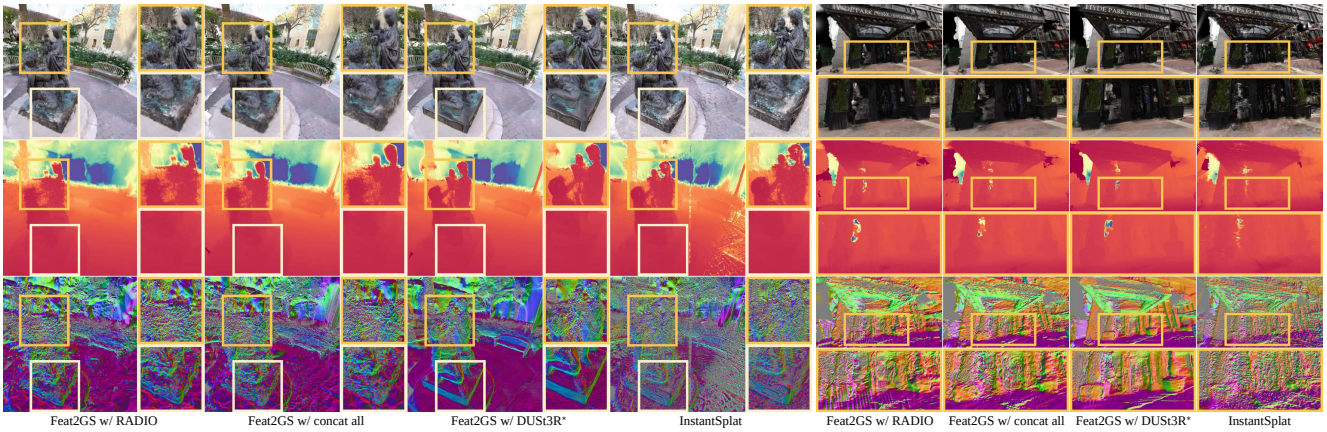


Figure R.7. **Novel View Synthesis of RGB Correlates with Depth and Normal.** We show qualitative examples, including RGB renderings, expected depth renderings, and expected normal renderings, of **G**eometry mode with different Feat2GS application baselines: feature pickup (Feat2GS w/ RADIO), feature ensembling (Feat2GS w/ concat all), and feature fine-tuning (Feat2GS w/ DUSt3R*). This demonstrates that the NVS quality of Feat2GS application baselines closely aligns with 2.5D metrics.

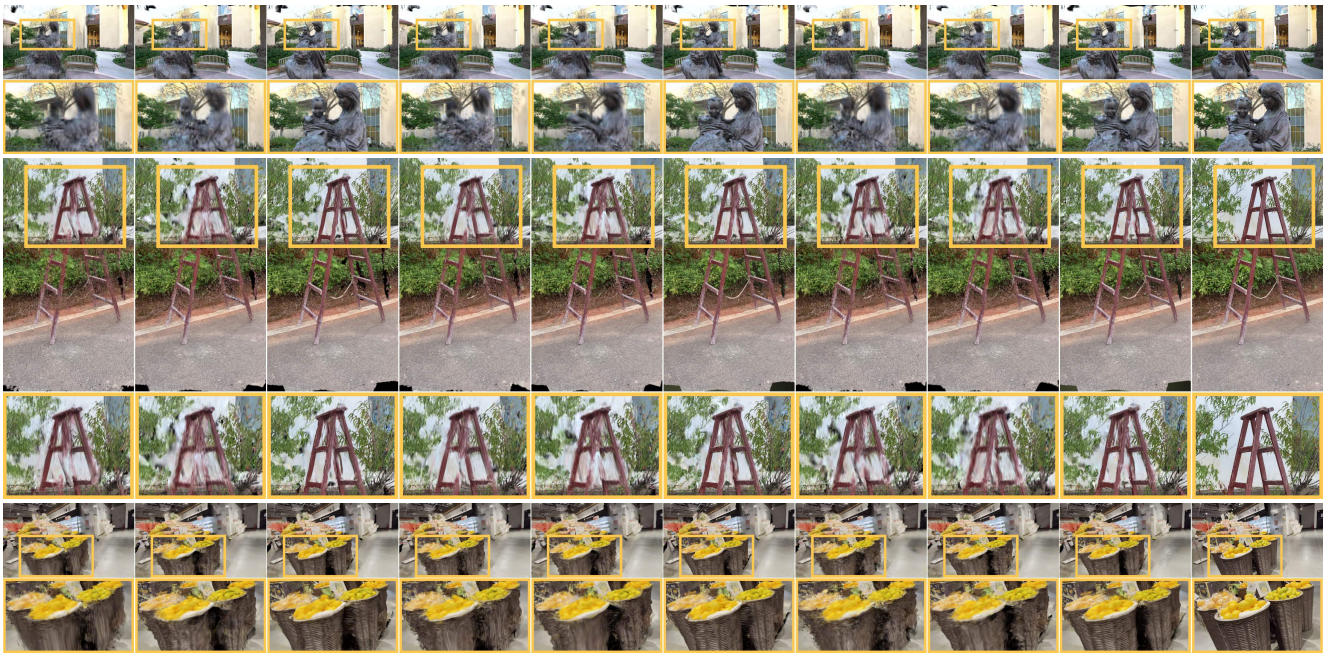
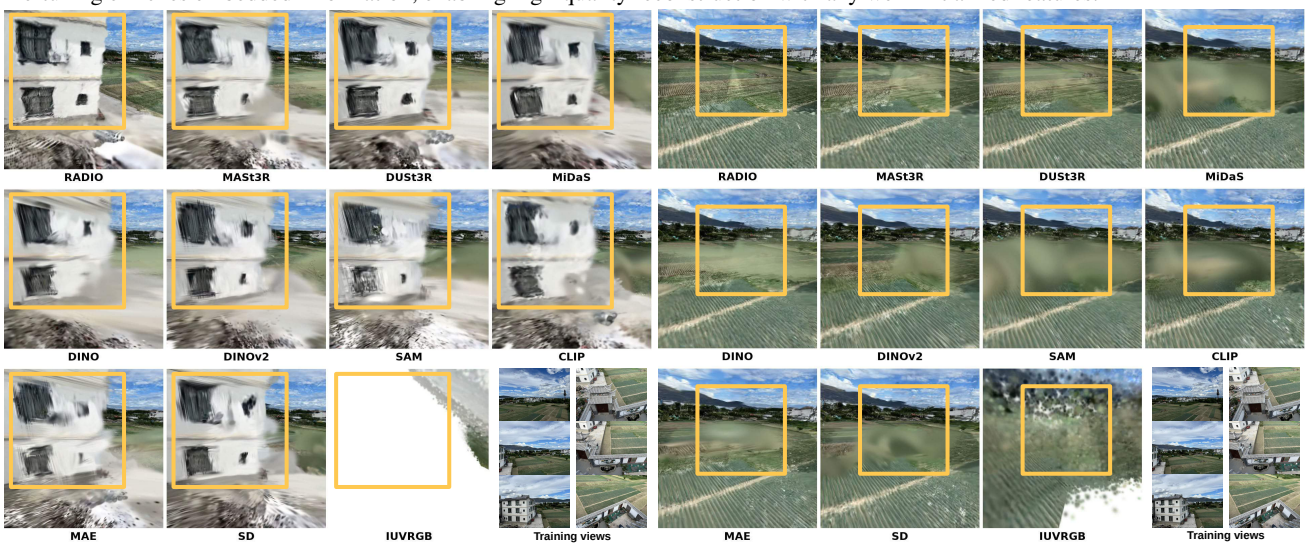


Figure R.8. **Feature Upsampling$^+$ *vs*. Fine-tuning*.** We compare Feat2GS application baselines between feature upsampling using the recent VFM feature upsampler [26] and feature fine-tuning during the warm-start stage. While feature upsampling improves the spatial resolution of features, feature fine-tuning provides greater details. Similar fine-tuning performance across different VFM features show that fine-tuning enriches embedded information, enabling high-quality reconstruction with any well-initialized features.



(a) Position $\boldsymbol{x}$ Awareness (b) Covariance Σ Awareness

Figure R.9. **Two Geometry Awareness Attributes.** We illustrate different attributes of geometry awareness. Position $\boldsymbol{x}$ awareness is typically reflected in the sharpness of readout details and edges, while covariance Σ awareness is often observed in the flatness of planes.

	LLFF									DL3DV									Casual								
	Geometry			Texture			All			Geometry			Texture			All			Geometry			Texture			All		
Feature	PSNR↑	SSIM↑	LPIPS↓	PSNR↑	SSIM↑	LPIPS↓	PSNR↑	SSIM↑	LPIPS↓	PSNR↑	SSIM↑	LPIPS↓	PSNR↑	SSIM↑	LPIPS↓	PSNR↑	SSIM↑	LPIPS↓	PSNR↑	SSIM↑	LPIPS↓	PSNR↑	SSIM↑	LPIPS↓	PSNR↑	SSIM↑	LPIPS↓
SD	19.62	.7293	.2234	18.85	.7100	.2297	19.78	.7121	.2656	19.31	.7251	.3276	17.79	.6784	.3260	19.10	.7282	.3500	19.24	.6483	.3649	17.38	.5698	.3789	18.86	.6505	.4053
Zero123	19.63	.7297	.2219	18.89	.7105	.2293	19.77	.7144	.2590	19.43	.7289	.3252	17.92	.6806	.3244	19.19	.7304	.3456	19.13	.6488	.3683	17.39	.5683	.3817	18.86	.6486	.4056
	MipNeRF 360									MVImgNet									Tanks and Temples								
	Geometry			Texture			All			Geometry			Texture			All			Geometry			Texture			All		
Feature	PSNR↑	SSIM↑	LPIPS↓	PSNR↑	SSIM↑	LPIPS↓	PSNR↑	SSIM↑	LPIPS↓	PSNR↑	SSIM↑	LPIPS↓	PSNR↑	SSIM↑	LPIPS↓	PSNR↑	SSIM↑	LPIPS↓	PSNR↑	SSIM↑	LPIPS↓	PSNR↑	SSIM↑	LPIPS↓	PSNR↑	SSIM↑	LPIPS↓
SD	20.71	.4962	.3985	18.89	.4472	.3839	20.59	.4929	.4672	19.08	.5881	.3185	16.63	.5313	.3389	19.06	.5838	.3660	18.69	.6422	.3772	17.32	.6217	.3374	18.55	.6467	.4020
Zero123	20.74	.4942	.3966	19.07	.4520	.3817	20.72	.4953	.4599	19.05	.5842	.3253	16.75	.5332	.3376	19.09	.5873	.3588	18.50	.6376	.3806	17.59	.6241	.3363	18.34	.6409	.4011

Table R.2. **Zero123 *vs*. Stable Diffusion (SD).** We report quantitative comparision between Zero123 and SD. It demonstrate that Zero123, which fine-tunes Stable Diffusion (SD) on Objaverse [19] multi-view dataset, captures geometry and texture better than SD in Objaverse-like simple scenes (LLFF) but performs worse in complex scenes (Tanks and Temples), which might be attributed to catastrophic forgetting [46].

	Fortress (LLFF)			Horns (LLFF)			Orchids (LLFF)			Room (LLFF)			Trex (LLFF)			Center (DL3DV)		
Feature	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓
DUSt3R	22.46	0.7766	0.1868	19.87	0.7428	0.1999	16.91	0.6095	0.2669	20.07	0.8339	0.2009	20.06	0.7580	0.2073	17.33	0.6510	0.3603
MASt3R	22.54	0.7854	0.1771	19.93	0.7402	0.2030	16.89	0.6063	0.2695	20.07	0.8341	0.1995	20.03	0.7576	0.2127	17.27	0.6479	0.3602
MiDaS	22.25	0.7811	0.1815	19.86	0.7326	0.2068	16.96	0.6106	0.2663	19.91	0.8259	0.2117	20.08	0.7599	0.2110	17.07	0.6411	0.3743
DINOv2	22.10	0.7514	0.2070	19.74	0.7232	0.2147	17.01	0.6084	0.2698	20.01	0.8303	0.2126	20.00	0.7593	0.2091	17.09	0.6446	0.3721
DINO	22.42	0.7743	0.1869	19.91	0.7435	0.1994	16.87	0.6071	0.2688	19.86	0.8298	0.2048	19.96	0.7570	0.2102	17.23	0.6451	0.3666
SAM	21.98	0.7572	0.2011	19.78	0.7234	0.2081	16.98	0.6083	0.2648	19.96	0.8286	0.2092	19.93	0.7596	0.2073	17.17	0.6446	0.3678
CLIP	22.47	0.7771	0.1907	19.83	0.7272	0.2153	16.86	0.6028	0.2761	19.89	0.8314	0.2121	19.83	0.7506	0.2164	17.17	0.6437	0.3777
RADIO	22.50	0.8017	0.1621	19.72	0.7314	0.2117	16.54	0.5911	0.2914	20.09	0.8325	0.2111	19.79	0.7442	0.2271	17.19	0.6448	0.3550
MAE	22.08	0.7577	0.2042	19.86	0.7234	0.2107	16.98	0.6107	0.2641	19.82	0.8320	0.2009	19.99	0.7579	0.2117	17.16	0.6438	0.3688
SD	21.62	0.7159	0.2280	19.86	0.7380	0.2047	16.78	0.6029	0.2722	19.84	0.8279	0.2039	19.98	0.7620	0.2084	17.19	0.6484	0.3648
IUVRGB	16.35	0.4913	0.4212	15.53	0.6048	0.3441	14.10	0.5086	0.4025	16.24	0.6920	0.4107	15.53	0.5858	0.4147	13.04	0.5478	0.4657
	Electrical (DL3DV)			Museum (DL3DV)			Supermarket2 (DL3DV)			Temple (DL3DV)			Erhai (Casual)			Paper2 (Casual)		
Feature	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓
DUSt3R	19.15	0.7566	0.3558	20.92	0.7853	0.2641	18.65	0.6855	0.3637	22.15	0.7906	0.2542	16.95	0.5876	0.3556	18.86	0.6313	0.3296
MASt3R	19.27	0.7579	0.3592	20.94	0.7823	0.2627	18.70	0.6893	0.3588	21.99	0.7896	0.2529	16.64	0.5698	0.3597	19.01	0.6336	0.3318
MiDaS	18.96	0.7496	0.3731	20.97	0.7828	0.2675	18.47	0.6739	0.3770	21.89	0.7880	0.2637	16.73	0.5848	0.3604	18.76	0.6355	0.3372
DINOv2	19.02	0.7520	0.3719	20.83	0.7862	0.2668	18.42	0.6749	0.3752	22.00	0.7889	0.2583	17.10	0.5804	0.3635	19.19	0.6310	0.3420
DINO	19.16	0.7563	0.3596	20.89	0.7834	0.2643	18.74	0.6871	0.3616	22.00	0.7901	0.2524	17.29	0.5681	0.3621	18.26	0.6298	0.3380
SAM	18.82	0.7484	0.3697	20.76	0.7835	0.2662	18.60	0.6796	0.3718	22.05	0.7926	0.2598	17.35	0.5670	0.3691	18.54	0.6279	0.3468
CLIP	19.14	0.7559	0.3717	20.90	0.7845	0.2695	18.43	0.6744	0.3777	22.02	0.7888	0.2556	17.15	0.5862	0.3685	18.16	0.6235	0.3498
RADIO	18.73	0.7499	0.3550	20.80	0.7774	0.2676	18.80	0.6943	0.3461	21.90	0.7902	0.2455	18.22	0.5840	0.3283	19.06	0.6369	0.3219
MAE	19.10	0.7543	0.3643	20.82	0.7808	0.2683	18.61	0.6762	0.3685	22.00	0.7890	0.2542	16.68	0.5783	0.3636	18.12	0.6229	0.3502
SD	18.30	0.7260	0.3812	20.64	0.7836	0.2684	18.59	0.6799	0.3646	21.81	0.7874	0.2591	17.81	0.5849	0.3550	18.40	0.6148	0.3413
IUVRGB	14.98	0.6666	0.4704	15.02	0.6545	0.4214	13.96	0.5839	0.5412	16.88	0.7101	0.3719	13.87	0.5076	0.4682	14.22	0.5846	0.4715
	Plushies (Casual)			Stuff (Casual)			Xbox (Casual)			Bicycle (MipNeRF 360)			Garden (MipNeRF 360)			Kitchen (MipNeRF 360)		
Feature	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓
DUSt3R	21.82	0.7282	0.3219	17.48	0.6726	0.3821	21.37	0.6614	0.4007	19.54	0.4024	0.4274	21.56	0.5254	0.3599	19.58	0.4907	0.3826
MASt3R	22.00	0.7323	0.3212	17.31	0.6753	0.3818	21.54	0.6640	0.3937	19.67	0.4073	0.4179	21.65	0.5356	0.3503	19.64	0.5002	0.3755
MiDaS	21.98	0.7278	0.3230	17.28	0.6659	0.3874	21.44	0.6587	0.3982	19.64	0.4066	0.4292	21.62	0.5260	0.3651	19.56	0.4983	0.3762
DINOv2	22.00	0.7298	0.3263	17.56	0.6717	0.3921	21.23	0.6493	0.4251	19.39	0.3942	0.4534	21.57	0.5139	0.3749	19.54	0.4767	0.3948
DINO	22.04	0.7302	0.3189	17.06	0.6694	0.3889	21.56	0.6590	0.3990	19.65	0.4085	0.4218	21.65	0.5264	0.3595	19.59	0.4922	0.3748
SAM	21.76	0.7229	0.3285	17.68	0.6668	0.3857	21.28	0.6497	0.4217	19.22	0.3874	0.4485	21.32	0.5011	0.3762	19.42	0.4780	0.3937
CLIP	21.72	0.7295	0.3333	17.34	0.6751	0.3930	21.69	0.6618	0.4150	19.61	0.4064	0.4460	21.44	0.5147	0.3713	19.48	0.4843	0.3854
RADIO	21.27	0.7185	0.3258	17.85	0.6743	0.3672	21.29	0.6587	0.3894	19.54	0.4058	0.4122	21.71	0.5458	0.3418	19.48	0.4987	0.3477
MAE	21.90	0.7260	0.3269	17.12	0.6687	0.3954	21.34	0.6550	0.4088	19.53	0.4042	0.4335	21.32	0.5105	0.3701	19.55	0.4905	0.3919
SD	21.61	0.7234	0.3262	17.25	0.6675	0.3831	21.13	0.6507	0.4190	19.44	0.4053	0.4593	21.48	0.5088	0.3790	19.31	0.4834	0.3965
IUVRGB	14.05	0.5294	0.5308	10.83	0.6095	0.5010	12.91	0.4959	0.6526	16.32	0.3683	0.6176	16.96	0.4022	0.5838	15.41	0.4142	0.5807
	Room (MipNeRF 360)			Stump (MipNeRF 360)			Bench (MVImgNet)			Bicycle (MVImgNet)			Car (MVImgNet)			Ladder (MVImgNet)		
Feature	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓
DUSt3R	23.50	0.7634	0.2501	19.90	0.3220	0.4773	18.28	0.4854	0.3376	17.23	0.4160	0.3982	22.18	0.8374	0.2063	18.26	0.5134	0.3325
MASt3R	23.55	0.7650	0.2519	20.09	0.3383	0.4770	18.30	0.4823	0.3302	17.25	0.4179	0.3895	22.24	0.8363	0.2019	18.23	0.5222	0.3287
MiDaS	23.62	0.7675	0.2509	20.02	0.3309	0.4860	18.02	0.4750	0.3597	17.01	0.4010	0.4111	22.15	0.8322	0.2134	18.32	0.5016	0.3405
DINOv2	23.54	0.7660	0.2597	20.01	0.3223	0.4937	18.31	0.4798	0.3600	17.07	0.3990	0.4170	22.03	0.8276	0.2181	18.11	0.4960	0.3425
DINO	23.66	0.7695	0.2462	20.03	0.3305	0.4822	18.31	0.4818	0.3399	17.11	0.4099	0.3952	22.12	0.8317	0.2095	18.38	0.5223	0.3286
SAM	23.76	0.7682	0.2620	19.92	0.3219	0.4920	18.19	0.4785	0.3493	17.01	0.4025	0.4078	21.64	0.8217	0.2215	18.10	0.5040	0.3393
CLIP	23.56	0.7669	0.2573	19.89	0.3187	0.4965	18.19	0.4866	0.3389	17.06	0.3988	0.4041	22.17	0.8356	0.2083	18.18	0.5064	0.3353
RADIO	23.67	0.7684	0.2380	19.94	0.3315	0.4703	18.20	0.4879	0.3247	17.20	0.4180	0.3895	22.65	0.8484	0.1901	18.36	0.5547	0.3193
MAE	23.70	0.7641	0.2561	20.00	0.3267	0.4903	18.17	0.4804	0.3391	16.97	0.4029	0.4004	21.66	0.8216	0.2221	18.14	0.5092	0.3364
SD	23.46	0.7598	0.2689	19.88	0.3239	0.4891	18.27	0.4818	0.3478	16.93	0.3964	0.4060	21.52	0.8277	0.2184	18.16	0.5015	0.3376
IUVRGB	17.05	0.5728	0.4828	16.54	0.2797	0.6903	14.32	0.4455	0.5308	12.89	0.2792	0.5970	17.53	0.7509	0.3281	17.13	0.4890	0.4393
	Suv (MVImgNet)			Auditorium (T&T)			Caterpillar (T&T)			Family (T&T)			Ignatius (T&T)			Train (T&T)		
Feature	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓
DUSt3R	21.39	0.7496	0.2617	19.87	0.7112	0.3684	18.78	0.5998	0.3820	19.61	0.6962	0.3223	18.21	0.6252	0.3604	17.76	0.5966	0.4243
MASt3R	21.42	0.7454	0.2659	19.68	0.7098	0.3658	18.72	0.5897	0.3813	19.68	0.6973	0.3195	18.01	0.6245	0.3630	17.93	0.5929	0.4220
MiDaS	21.27	0.7400	0.2864	19.92	0.7178	0.3647	18.45	0.5901	0.3978	19.35	0.6792	0.3320	18.05	0.6212	0.3642	16.90	0.5787	0.4405
DINOv2	21.24	0.7456	0.2852	19.89	0.7139	0.3668	18.78	0.6001	0.3847	19.38	0.6866	0.3306	17.94	0.6220	0.3698	17.56	0.5934	0.4341
DINO	21.30	0.7452	0.2623	19.91	0.7143	0.3650	18.78	0.5987	0.3822	19.34	0.6849	0.3272	18.22	0.6244	0.3602	17.48	0.5859	0.4319
SAM	21.22	0.7425	0.2759	19.99	0.7212	0.3616	18.60	0.5996	0.3889	19.38	0.6828	0.3284	18.11	0.6231	0.3611	17.17	0.5836	0.4501
CLIP	21.45	0.7452	0.2622	20.02	0.7149	0.3716	18.84	0.5975	0.3845	19.42	0.6885	0.3336	18.20	0.6241	0.3664	18.13	0.6064	0.4084
RADIO	21.32	0.7435	0.2509	20.00	0.7171	0.3588	19.05	0.6066	0.3639	19.80	0.7083	0.3028	18.27	0.6252	0.3473	18.84	0.6488	0.3674
MAE	21.22	0.7403	0.2730	20.11	0.7244	0.3595	18.35	0.5793	0.3918	19.32	0.6880	0.3257	18.19	0.6170	0.3598	17.30	0.5891	0.4420
SD	20.51	0.7330	0.2828	19.66	0.7074	0.3682	18.63	0.5922	0.3930	19.48	0.6883	0.3253	18.07	0.6234	0.3639	17.63	0.5998	0.4356
IUVRGB	12.29	0.5697	0.4290	15.50	0.6190	0.4406	16.67	0.5616	0.4889	14.72	0.6224	0.4719	15.62	0.5932	0.4631	13.94	0.5269	0.5037

Table R.3. Quantitative Results for Individual Scenes in the **G**eometry mode

	Fortress (LLFF)			Horns (LLFF)			Orchids (LLFF)			Room (LLFF)			Trex (LLFF)			Center (DL3DV)		
Feature	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓
DUSt3R	20.60	0.7404	0.2316	18.98	0.6957	0.1959	16.31	0.5814	0.2680	20.10	0.8135	0.2152	19.07	0.7291	0.2204	15.78	0.5908	0.3593
MASt3R	20.71	0.7439	0.2301	18.93	0.6934	0.1968	16.33	0.5807	0.2672	20.04	0.8118	0.2158	19.03	0.7278	0.2209	15.67	0.5854	0.3603
MiDaS	20.47	0.7430	0.2306	19.02	0.6965	0.1959	16.29	0.5800	0.2681	20.22	0.8161	0.2141	19.03	0.7290	0.2218	15.62	0.5827	0.3611
DINOv2	20.68	0.7438	0.2293	18.98	0.6960	0.1965	16.31	0.5817	0.2667	20.11	0.8149	0.2161	19.14	0.7300	0.2184	15.63	0.5828	0.3629
DINO	20.56	0.7431	0.2317	18.91	0.6938	0.1968	16.33	0.5805	0.2673	20.08	0.8138	0.2142	19.04	0.7290	0.2199	15.58	0.5805	0.3632
SAM	20.53	0.7449	0.2293	18.95	0.6964	0.1947	16.22	0.5800	0.2688	20.12	0.8152	0.2148	19.08	0.7298	0.2227	15.44	0.5848	0.3594
CLIP	20.79	0.7444	0.2306	18.90	0.6941	0.1970	16.35	0.5810	0.2675	19.97	0.8088	0.2214	19.09	0.7282	0.2217	15.80	0.5838	0.3614
RADIO	21.07	0.7442	0.2320	18.88	0.6929	0.1982	16.35	0.5806	0.2700	19.82	0.8030	0.2289	19.18	0.7298	0.2215	15.91	0.5822	0.3636
MAE	20.52	0.7405	0.2300	18.99	0.6974	0.1959	16.30	0.5805	0.2684	20.06	0.8144	0.2122	19.16	0.7313	0.2182	15.59	0.5852	0.3600
SD	20.18	0.7377	0.2325	18.93	0.6945	0.1978	16.18	0.5774	0.2719	20.03	0.8132	0.2206	18.95	0.7270	0.2258	15.58	0.5879	0.3617
IUVRGB	22.01	0.7543	0.2290	19.39	0.7170	0.2114	16.75	0.5997	0.2630	20.79	0.8323	0.2060	19.79	0.7482	0.2215	16.59	0.6108	0.3719
	Electrical (DL3DV)			Museum (DL3DV)			Supermarket2 (DL3DV)			Temple (DL3DV)			Erhai (Casual)			Paper2 (Casual)		
Feature	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓
DUSt3R	17.17	0.6887	0.3678	18.77	0.7214	0.2988	17.62	0.6537	0.3315	20.69	0.7528	0.2520	17.29	0.5748	0.3260	16.15	0.5327	0.3849
MASt3R	17.19	0.6892	0.3644	18.97	0.7250	0.2972	17.65	0.6542	0.3318	20.85	0.7527	0.2520	17.36	0.5752	0.3250	16.27	0.5358	0.3794
MiDaS	17.05	0.6891	0.3671	18.79	0.7204	0.2984	17.65	0.6537	0.3324	20.60	0.7520	0.2528	17.26	0.5750	0.3264	16.07	0.5301	0.3840
DINOv2	17.03	0.6894	0.3679	18.93	0.7244	0.2973	17.68	0.6525	0.3315	20.75	0.7537	0.2520	17.32	0.5746	0.3270	16.57	0.5333	0.3852
DINO	17.07	0.6846	0.3676	18.81	0.7230	0.2966	17.63	0.6557	0.3303	20.78	0.7515	0.2519	17.26	0.5735	0.3268	16.24	0.5345	0.3827
SAM	17.21	0.6905	0.3698	18.85	0.7255	0.2975	17.69	0.6557	0.3308	20.65	0.7547	0.2513	17.25	0.5716	0.3274	16.26	0.5403	0.3815
CLIP	17.16	0.6796	0.3695	18.86	0.7188	0.3012	17.63	0.6541	0.3297	20.79	0.7492	0.2557	17.23	0.5730	0.3258	16.04	0.5327	0.3834
RADIO	17.09	0.6767	0.3707	18.75	0.7161	0.3020	17.52	0.6503	0.3342	20.88	0.7486	0.2564	17.22	0.5725	0.3264	16.25	0.5360	0.3801
MAE	17.07	0.6913	0.3651	18.76	0.7227	0.2974	17.75	0.6578	0.3294	20.72	0.7536	0.2516	17.29	0.5648	0.3301	16.16	0.5372	0.3820
SD	16.63	0.6804	0.3748	18.67	0.7191	0.3045	17.56	0.6526	0.3341	20.50	0.7521	0.2550	17.39	0.5729	0.3278	15.94	0.5354	0.3909
IUVRGB	17.77	0.7065	0.3711	19.71	0.7490	0.2889	18.16	0.6746	0.3336	21.51	0.7708	0.2595	17.27	0.5748	0.3416	16.98	0.5549	0.3865
	Plushies (Casual)			Stuff (Casual)			Xbox (Casual)			Bicycle (MipNeRF 360)			Garden (MipNeRF 360)			Kitchen (MipNeRF 360)		
Feature	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓
DUSt3R	19.13	0.6324	0.3284	15.84	0.5362	0.4095	19.28	0.5705	0.4262	17.02	0.3276	0.4265	19.91	0.4838	0.3576	17.94	0.4203	0.3733
MASt3R	19.06	0.6311	0.3280	16.08	0.5398	0.4028	19.18	0.5720	0.4255	17.18	0.3295	0.4252	19.87	0.4851	0.3563	18.22	0.4441	0.3716
MiDaS	19.01	0.6301	0.3295	15.87	0.5383	0.4141	19.39	0.5730	0.4242	16.90	0.3270	0.4278	19.93	0.4876	0.3568	18.02	0.4340	0.3707
DINOv2	18.97	0.6285	0.3324	16.02	0.5426	0.4061	19.32	0.5718	0.4266	17.08	0.3279	0.4277	19.93	0.4866	0.3535	17.93	0.4271	0.3774
DINO	18.99	0.6304	0.3300	15.77	0.5331	0.4089	19.25	0.5700	0.4299	16.98	0.3263	0.4276	19.93	0.4837	0.3558	18.28	0.4538	0.3651
SAM	18.95	0.6308	0.3308	16.02	0.5500	0.4032	19.09	0.5696	0.4249	17.14	0.3311	0.4239	19.96	0.4865	0.3524	18.17	0.4543	0.3623
CLIP	18.92	0.6273	0.3310	15.85	0.5300	0.4050	19.27	0.5717	0.4261	17.26	0.3350	0.4255	19.94	0.4828	0.3582	18.27	0.4408	0.3688
RADIO	19.08	0.6271	0.3320	15.75	0.5262	0.4088	19.31	0.5710	0.4267	17.34	0.3358	0.4249	19.88	0.4822	0.3629	18.36	0.4371	0.3719
MAE	18.98	0.6317	0.3297	15.95	0.5411	0.4115	19.15	0.5707	0.4260	17.14	0.3289	0.4255	19.92	0.4868	0.3533	18.22	0.4635	0.3611
SD	18.63	0.6275	0.3356	15.92	0.5467	0.4102	19.00	0.5667	0.4301	16.95	0.3308	0.4274	19.91	0.4852	0.3545	17.74	0.4231	0.3791
IUVRGB	19.06	0.6423	0.3558	16.48	0.5811	0.4043	19.59	0.6103	0.4350	18.21	0.3644	0.4312	20.59	0.5079	0.3743	18.93	0.4692	0.3751
	Room (MipNeRF 360)			Stump (MipNeRF 360)			Bench (MVImgNet)			Bicycle (MVImgNet)			Car (MVImgNet)			Ladder (MVImgNet)		
Feature	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓
DUSt3R	22.47	0.7343	0.2611	18.16	0.2785	0.4895	15.72	0.4193	0.3685	14.46	0.3379	0.4314	20.22	0.7926	0.2277	16.20	0.4866	0.3314
MASt3R	22.55	0.7315	0.2611	18.22	0.2800	0.4875	15.68	0.4197	0.3695	14.52	0.3381	0.4306	20.21	0.7894	0.2303	16.31	0.4874	0.3298
MiDaS	22.36	0.7303	0.2629	18.05	0.2757	0.4881	15.64	0.4198	0.3706	14.47	0.3374	0.4304	20.07	0.7901	0.2299	16.17	0.4832	0.3327
DINOv2	22.13	0.7282	0.2638	18.20	0.2778	0.4883	15.65	0.4198	0.3702	14.47	0.3376	0.4311	20.17	0.7908	0.2308	16.17	0.4872	0.3313
DINO	22.48	0.7305	0.2617	18.21	0.2782	0.4873	15.70	0.4192	0.3712	14.39	0.3361	0.4323	20.15	0.7899	0.2287	16.35	0.5073	0.3250
SAM	22.28	0.7292	0.2630	18.12	0.2772	0.4860	15.67	0.4229	0.3691	14.44	0.3359	0.4330	20.09	0.7878	0.2323	16.25	0.4893	0.3297
CLIP	22.59	0.7354	0.2617	18.35	0.2774	0.4893	15.66	0.4200	0.3719	14.52	0.3377	0.4332	20.04	0.7880	0.2325	16.36	0.4965	0.3278
RADIO	22.59	0.7361	0.2620	18.58	0.2840	0.4877	15.64	0.4188	0.3715	14.50	0.3384	0.4324	20.32	0.7874	0.2345	16.44	0.5082	0.3268
MAE	22.26	0.7284	0.2641	18.17	0.2786	0.4867	15.70	0.4183	0.3703	14.47	0.3380	0.4299	20.02	0.7910	0.2291	16.17	0.4879	0.3300
SD	21.99	0.7216	0.2699	17.84	0.2754	0.4885	15.51	0.4209	0.3752	14.30	0.3336	0.4358	19.90	0.7911	0.2320	16.11	0.4875	0.3319
IUVRGB	23.14	0.7507	0.2660	18.96	0.3064	0.5091	16.49	0.4480	0.3764	15.10	0.3640	0.4509	20.68	0.7946	0.2389	17.15	0.5289	0.3403
	Suv (MVImgNet)			Auditorium (T&T)			Caterpillar (T&T)			Family (T&T)			Ignatius (T&T)			Train (T&T)		
Feature	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓
DUSt3R	17.77	0.6377	0.3081	17.92	0.6637	0.3595	16.39	0.5543	0.3552	19.64	0.6914	0.2650	16.54	0.5722	0.3542	17.14	0.6294	0.3303
MASt3R	17.80	0.6402	0.3084	18.11	0.6667	0.3573	17.05	0.5632	0.3533	19.52	0.6884	0.2671	16.70	0.5732	0.3522	16.99	0.6273	0.3295
MiDaS	17.73	0.6378	0.3081	17.97	0.6623	0.3624	17.14	0.5676	0.3527	19.49	0.6896	0.2659	16.50	0.5707	0.3566	17.12	0.6288	0.3288
DINOv2	17.94	0.6442	0.3085	17.58	0.6503	0.3684	17.21	0.5693	0.3521	19.43	0.6883	0.2685	16.68	0.5710	0.3549	16.98	0.6284	0.3299
DINO	17.92	0.6446	0.3073	18.03	0.6634	0.3623	17.17	0.5673	0.3528	19.51	0.6866	0.2677	16.63	0.5721	0.3530	16.96	0.6274	0.3292
SAM	17.74	0.6370	0.3087	17.57	0.6523	0.3671	16.83	0.5636	0.3541	19.41	0.6899	0.2662	16.55	0.5714	0.3549	17.11	0.6312	0.3265
CLIP	18.22	0.6386	0.3135	17.96	0.6600	0.3619	17.42	0.5664	0.3511	19.69	0.6893	0.2655	16.79	0.5708	0.3537	17.19	0.6264	0.3256
RADIO	18.04	0.6339	0.3178	18.14	0.6636	0.3591	17.58	0.5676	0.3514	19.60	0.6883	0.2683	16.81	0.5707	0.3539	17.06	0.6224	0.3278
MAE	17.85	0.6425	0.3048	17.98	0.6649	0.3591	17.00	0.5647	0.3539	19.43	0.6890	0.2675	16.36	0.5702	0.3547	16.97	0.6283	0.3313
SD	17.36	0.6232	0.3197	18.11	0.6675	0.3629	15.84	0.5489	0.3634	19.40	0.6908	0.2685	16.33	0.5727	0.3575	16.93	0.6286	0.3347
IUVRGB	19.78	0.6487	0.3090	19.29	0.7052	0.3531	18.56	0.5997	0.3586	19.86	0.7063	0.2852	17.17	0.5901	0.3657	18.15	0.6614	0.3354

Table R.4. Quantitative Results for Individual Scenes in the **T**exture mode

	Fortress (LLFF)			Horns (LLFF)			Orchids (LLFF)			Room (LLFF)			Trex (LLFF)			Center (DL3DV)		
Feature	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓
DUSt3R	21.94	0.6621	0.3051	20.14	0.7186	0.2790	17.25	0.6290	0.2838	19.99	0.8304	0.2361	20.04	0.7551	0.2417	16.85	0.6532	0.3773
MASt3R	22.26	0.6833	0.2845	20.08	0.7204	0.2816	17.36	0.6358	0.2792	20.07	0.8292	0.2380	20.20	0.7565	0.2453	16.91	0.6539	0.3769
MiDaS	21.66	0.6357	0.3207	20.16	0.7164	0.2817	17.14	0.6302	0.2832	20.33	0.8323	0.2380	20.01	0.7563	0.2428	16.56	0.6365	0.3888
DINOv2	21.74	0.6465	0.2852	20.03	0.7173	0.2758	17.13	0.6282	0.2836	20.47	0.8308	0.2362	20.19	0.7588	0.2376	16.40	0.6394	0.3840
DINO	22.17	0.6668	0.3114	20.10	0.7192	0.2804	17.22	0.6329	0.2847	20.28	0.8307	0.2466	20.11	0.7563	0.2488	16.84	0.6534	0.3830
SAM	21.24	0.6282	0.3141	19.85	0.7177	0.2706	17.21	0.6292	0.2726	20.42	0.8362	0.2221	20.08	0.7605	0.2352	16.39	0.6315	0.3884
CLIP	22.11	0.6604	0.2920	19.95	0.7123	0.2942	17.19	0.6282	0.2983	19.40	0.8181	0.2628	20.06	0.7488	0.2638	16.89	0.6494	0.3909
RADIO	21.67	0.6282	0.3893	19.78	0.7003	0.3185	17.07	0.6196	0.3381	19.09	0.8118	0.2814	20.19	0.7395	0.2988	16.96	0.6614	0.3884
MAE	21.78	0.6612	0.2949	20.25	0.7220	0.2744	17.21	0.6287	0.2786	20.22	0.8324	0.2262	20.14	0.7602	0.2320	16.56	0.6261	0.3896
SD	21.51	0.6272	0.3051	19.89	0.7192	0.2626	17.16	0.6279	0.2797	20.23	0.8278	0.2403	20.10	0.7585	0.2404	16.73	0.6463	0.3829
IUVRGB	18.11	0.5288	0.5189	14.73	0.6269	0.3682	13.62	0.5686	0.4688	15.78	0.7217	0.4118	14.66	0.6415	0.3866	13.45	0.5626	0.4564

	Electrical (DL3DV)			Museum (DL3DV)			Supermarket2 (DL3DV)			Temple (DL3DV)			Erhai (Casual)			Paper2 (Casual)		
Feature	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓
DUSt3R	18.90	0.7615	0.3775	20.81	0.7906	0.2842	18.44	0.6800	0.3973	21.93	0.7945	0.2925	17.35	0.5822	0.4179	18.28	0.6528	0.3832
MASt3R	19.11	0.7680	0.3753	20.63	0.7902	0.2857	18.50	0.6795	0.4009	21.90	0.7950	0.2932	17.72	0.5873	0.4160	18.83	0.6559	0.3770
MiDaS	18.75	0.7570	0.3804	20.80	0.7900	0.2823	18.22	0.6716	0.4021	21.77	0.7904	0.2931	16.81	0.5824	0.4115	18.48	0.6528	0.3804
DINOv2	19.14	0.7657	0.3791	20.71	0.7903	0.2842	18.33	0.6734	0.4003	21.77	0.7897	0.2920	16.83	0.5802	0.4119	19.19	0.6584	0.3668
DINO	19.01	0.7626	0.3764	20.76	0.7905	0.2871	18.46	0.6786	0.4000	21.99	0.7943	0.2916	17.72	0.5873	0.4172	18.27	0.6537	0.3719
SAM	18.72	0.7501	0.3775	20.52	0.7877	0.2813	18.42	0.6729	0.3944	21.96	0.7939	0.2879	16.65	0.5789	0.4089	19.14	0.6530	0.3744
CLIP	18.48	0.7529	0.3919	20.66	0.7894	0.2906	18.18	0.6707	0.4121	21.89	0.7924	0.2958	16.45	0.5849	0.4202	18.84	0.6613	0.3774
RADIO	18.74	0.7611	0.3968	20.37	0.7751	0.3036	18.13	0.6712	0.4243	21.78	0.7890	0.3139	16.57	0.5875	0.4243	18.37	0.6603	0.3811
MAE	19.04	0.7639	0.3764	20.73	0.7903	0.2783	18.39	0.6792	0.3923	22.00	0.7956	0.2874	17.30	0.5776	0.4087	18.86	0.6552	0.3740
SD	18.20	0.7431	0.3870	20.50	0.7821	0.2907	18.46	0.6781	0.3970	21.60	0.7915	0.2924	16.65	0.5803	0.4089	18.96	0.6510	0.3751
IUVRGB	12.68	0.6689	0.4550	13.86	0.6614	0.4159	13.51	0.5942	0.5106	16.76	0.7283	0.3550	16.00	0.5691	0.4759	14.07	0.6253	0.4337

	Plushies (Casual)			Stuff (Casual)			Xbox (Casual)			Bicycle (MipNeRF 360)			Garden (MipNeRF 360)			Kitchen (MipNeRF 360)		
Feature	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓
DUSt3R	21.89	0.6947	0.3858	17.62	0.6893	0.3806	20.82	0.6588	0.4574	19.82	0.4221	0.5193	21.80	0.4866	0.4971	19.59	0.5070	0.4570
MASt3R	21.81	0.6939	0.3890	17.54	0.6946	0.3752	20.94	0.6626	0.4566	19.91	0.4245	0.5253	21.73	0.4877	0.5002	19.41	0.5031	0.4437
MiDaS	21.71	0.6863	0.3926	17.26	0.6855	0.3882	20.52	0.6512	0.4639	19.96	0.4248	0.5262	21.52	0.4812	0.5029	19.51	0.4983	0.4639
DINOv2	21.34	0.6882	0.3813	17.83	0.6893	0.3844	20.85	0.6514	0.4669	19.47	0.4063	0.5162	21.56	0.4804	0.4960	19.49	0.4882	0.4469
DINO	21.68	0.6916	0.3868	17.02	0.6898	0.3980	20.81	0.6604	0.4539	19.91	0.4208	0.5250	21.52	0.4825	0.4978	19.02	0.4900	0.4609
SAM	21.63	0.7028	0.3692	17.87	0.6945	0.3820	20.67	0.6553	0.4559	19.34	0.4083	0.5180	21.56	0.4815	0.4815	19.28	0.4956	0.4445
CLIP	21.51	0.6901	0.3939	17.27	0.6911	0.3870	21.16	0.6634	0.4635	19.96	0.4220	0.5310	21.61	0.4795	0.5063	19.13	0.4795	0.4465
RADIO	21.04	0.6726	0.4358	16.67	0.6952	0.3792	20.73	0.6507	0.4876	20.11	0.4320	0.5567	21.57	0.4752	0.5379	19.68	0.5119	0.4842
MAE	21.35	0.6909	0.3719	17.67	0.6893	0.3819	20.74	0.6604	0.4503	19.66	0.4159	0.5175	21.63	0.4843	0.4889	19.18	0.4928	0.4490
SD	21.22	0.6882	0.3793	17.06	0.6813	0.4009	20.41	0.6517	0.4625	19.53	0.4129	0.5117	21.63	0.4828	0.4832	19.04	0.4843	0.4431
IUVRGB	13.13	0.5682	0.5347	13.18	0.6617	0.4288	12.18	0.5344	0.6042	16.20	0.3614	0.6213	17.34	0.4313	0.5962	15.02	0.4498	0.5853

	Room (MipNeRF 360)			Stump (MipNeRF 360)			Bench (MVImgNet)			Bicycle (MVImgNet)			Car (MVImgNet)			Ladder (MVImgNet)		
Feature	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓
DUSt3R	23.72	0.7591	0.3261	20.16	0.3491	0.5767	19.05	0.5092	0.4156	17.29	0.3711	0.4937	21.78	0.8338	0.2357	18.47	0.5120	0.3875
MASt3R	23.42	0.7623	0.3256	20.14	0.3493	0.5798	19.09	0.5125	0.4078	17.23	0.3677	0.4961	21.68	0.8372	0.2313	18.42	0.5118	0.3870
MiDaS	23.19	0.7548	0.3334	20.02	0.3428	0.5709	18.71	0.5031	0.4101	17.20	0.3692	0.4970	21.46	0.8270	0.2372	18.44	0.5088	0.3844
DINOv2	23.32	0.7543	0.3262	19.89	0.3326	0.5566	18.71	0.4976	0.4137	17.14	0.3669	0.4981	21.55	0.8327	0.2370	18.57	0.5121	0.3837
DINO	23.56	0.7639	0.3259	20.12	0.3478	0.5766	18.91	0.5079	0.4102	17.22	0.3665	0.5039	21.84	0.8384	0.2280	18.58	0.5112	0.3898
SAM	23.70	0.7551	0.3219	19.87	0.3338	0.5539	18.76	0.5040	0.4059	17.15	0.3655	0.4971	21.25	0.8267	0.2348	18.44	0.5077	0.3839
CLIP	23.59	0.7690	0.3314	20.12	0.3422	0.5715	18.94	0.5122	0.4139	17.29	0.3727	0.5013	21.75	0.8366	0.2331	18.44	0.5123	0.3900
RADIO	22.87	0.7567	0.3532	20.32	0.3575	0.6313	19.17	0.5069	0.4558	17.44	0.3574	0.5426	21.64	0.8341	0.2505	18.79	0.5233	0.4130
MAE	23.37	0.7638	0.3206	20.10	0.3405	0.5582	18.77	0.5038	0.4136	17.24	0.3670	0.5017	21.55	0.8307	0.2352	18.12	0.5054	0.3887
SD	22.90	0.7455	0.3308	19.84	0.3388	0.5672	18.34	0.4888	0.4103	16.87	0.3628	0.4984	21.65	0.8324	0.2337	18.30	0.5075	0.3760
IUVRGB	14.55	0.5198	0.5069	18.96	0.3311	0.6547	15.69	0.4710	0.5220	13.80	0.2845	0.6120	15.41	0.7494	0.3134	17.20	0.5072	0.4651

	Suv (MVImgNet)			Auditorium (T&T)			Caterpillar (T&T)			Family (T&T)			Ignatius (T&T)			Train (T&T)		
Feature	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓	PSNR ↑	SSIM ↑	LPIPS ↓
DUSt3R	20.54	0.7425	0.3046	19.19	0.7052	0.3851	18.98	0.6161	0.4151	19.15	0.6845	0.3690	18.48	0.6409	0.3950	17.22	0.5917	0.4472
MASt3R	21.04	0.7623	0.2965	19.62	0.7155	0.3750	18.94	0.6190	0.4141	19.20	0.6853	0.3694	18.50	0.6402	0.3934	17.55	0.5962	0.4439
MiDaS	20.90	0.7467	0.3074	19.45	0.7156	0.3813	17.96	0.5952	0.4199	18.91	0.6795	0.3700	18.28	0.6321	0.3899	16.97	0.5918	0.4584
DINOv2	21.18	0.7623	0.3047	19.78	0.7176	0.3766	18.52	0.6052	0.4216	18.77	0.6783	0.3725	18.14	0.6344	0.3987	16.96	0.5862	0.4626
DINO	20.51	0.7518	0.3095	19.64	0.7163	0.3817	18.91	0.6121	0.4161	18.98	0.6813	0.3701	18.27	0.6348	0.3948	17.23	0.5888	0.4522
SAM	20.84	0.7537	0.3027	19.62	0.7151	0.3790	18.77	0.6045	0.4118	19.02	0.6803	0.3681	18.03	0.6325	0.3904	16.71	0.5799	0.4653
CLIP	20.45	0.7505	0.3090	19.82	0.7169	0.3857	18.66	0.6124	0.4241	19.27	0.6821	0.3777	18.32	0.6371	0.4034	17.70	0.6091	0.4352
RADIO	20.97	0.7558	0.3112	19.53	0.7131	0.3928	18.96	0.6225	0.4293	19.58	0.6879	0.3879	18.65	0.6416	0.4070	18.33	0.6219	0.4377
MAE	20.55	0.7500	0.3010	19.55	0.7120	0.3785	18.77	0.6110	0.4091	19.19	0.6833	0.3648	18.03	0.6324	0.3912	16.91	0.5869	0.4563
SD	20.11	0.7276	0.3118	19.11	0.7053	0.3867	18.78	0.6089	0.4138	19.33	0.6854	0.3649	18.08	0.6341	0.3916	17.46	0.5998	0.4532
IUVRGB	14.82	0.6687	0.4368	16.10	0.6541	0.4101	16.12	0.5644	0.4679	14.78	0.6252	0.4640	14.73	0.5876	0.4994	14.10	0.5428	0.5179

Table R.5. Quantitative Results for Individual Scenes in the **A**ll mode

	Scan1 (DTU)						Scan23 (DTU)						Scan4 (DTU)						Scan75 (DTU)					
Feature	PSNR ↑	SSIM ↑	LPIPS ↓	Acc. ↓	Comp. ↓	Dist. ↓	PSNR ↑	SSIM ↑	LPIPS ↓	Acc. ↓	Comp. ↓	Dist. ↓	PSNR ↑	SSIM ↑	LPIPS ↓	Acc. ↓	Comp. ↓	Dist. ↓	PSNR ↑	SSIM ↑	LPIPS ↓	Acc. ↓	Comp. ↓	Dist. ↓
DUSt3R	22.19	0.7604	0.2374	2.042	1.267	7.569	19.64	0.6427	0.3100	1.781	1.374	6.130	19.28	0.6618	0.2554	2.848	1.515	7.165	23.52	0.8240	0.1652	3.101	1.434	8.311
MASt3R	22.22	0.7649	0.2334	1.876	1.139	6.645	19.45	0.6393	0.3128	1.808	1.380	6.066	19.44	0.6680	0.2513	2.708	1.478	6.756	23.23	0.8260	0.1641	3.056	1.499	7.968
MiDaS	22.08	0.7559	0.2441	2.602	1.394	8.196	19.50	0.6334	0.3170	2.326	1.542	7.626	19.44	0.6676	0.2539	3.140	1.588	7.899	23.33	0.8219	0.1679	3.345	1.461	8.839
DINOv2	21.58	0.7481	0.2552	3.722	1.359	11.194	19.04	0.6259	0.3200	2.374	1.355	7.773	19.10	0.6558	0.2627	3.298	1.440	8.520	23.30	0.8251	0.1688	3.926	1.571	9.425
DINO	21.91	0.7554	0.2430	2.411	1.328	7.721	19.36	0.6379	0.3145	1.975	1.432	6.407	19.25	0.6641	0.2510	2.775	1.493	6.821	23.36	0.8280	0.1634	3.325	1.612	8.259
SAM	21.76	0.7492	0.2536	3.128	1.329	9.381	19.00	0.6176	0.3254	2.678	1.291	9.178	19.14	0.6600	0.2627	3.335	1.532	8.396	23.32	0.8187	0.1724	3.820	1.456	9.740
CLIP	21.79	0.7498	0.2472	2.262	1.137	7.294	19.32	0.6333	0.3198	1.914	1.373	6.195	19.32	0.6643	0.2540	2.694	1.373	7.094	23.33	0.8260	0.1653	2.977	1.387	7.748
RADIO	22.61	0.7774	0.2148	1.241	1.073	5.328	19.31	0.6409	0.3037	1.702	1.570	5.273	19.69	0.6739	0.2388	2.439	1.686	6.287	23.79	0.8527	0.1477	2.697	1.641	6.882
MAE	21.71	0.7476	0.2541	3.256	1.351	10.750	19.01	0.6229	0.3208	2.244	1.407	7.539	19.07	0.6576	0.2646	3.203	1.461	8.163	23.43	0.8216	0.1681	3.436	1.417	8.689
SD	21.28	0.7434	0.2606	5.212	1.649	13.766	19.07	0.6208	0.3278	3.453	1.564	11.532	18.84	0.6519	0.2690	4.431	1.754	10.571	23.41	0.8199	0.1725	5.334	1.878	12.456
IUVRGB	16.24	0.6967	0.3243	16.673	23.935	38.901	14.01	0.4927	0.4406	16.833	13.469	73.607	12.64	0.5816	0.3750	15.078	20.257	69.307	19.63	0.7977	0.2143	12.262	15.690	40.133

	Scan9 (DTU)						Scan10 (DTU)						Scan11 (DTU)						Scan110 (DTU)					
Feature	PSNR ↑	SSIM ↑	LPIPS ↓	Acc. ↓	Comp. ↓	Dist. ↓	PSNR ↑	SSIM ↑	LPIPS ↓	Acc. ↓	Comp. ↓	Dist. ↓	PSNR ↑	SSIM ↑	LPIPS ↓	Acc. ↓	Comp. ↓	Dist. ↓	PSNR ↑	SSIM ↑	LPIPS ↓	Acc. ↓	Comp. ↓	Dist. ↓
DUSt3R	19.29	0.6866	0.3106	1.860	1.140	5.944	20.53	0.7889	0.2103	2.090	1.244	6.577	21.94	0.8048	0.2495	2.304	1.094	7.266	24.76	0.8767	0.1442	2.299	1.181	6.556
MASt3R	19.38	0.6878	0.3092	1.680	1.088	5.285	20.44	0.7876	0.2117	2.103	1.242	6.230	21.68	0.8022	0.2552	2.110	1.090	6.237	24.83	0.8776	0.1431	2.209	1.235	6.413
MiDaS	19.44	0.6759	0.3179	2.412	1.200	7.370	19.78	0.7709	0.2256	3.824	1.550	10.567	21.68	0.8020	0.2488	2.770	1.160	8.400	24.12	0.8716	0.1478	2.487	1.277	7.158
DINOv2	19.33	0.6791	0.3153	2.191	1.147	7.162	20.00	0.7733	0.2248	3.476	1.462	8.763	21.50	0.8039	0.2535	2.990	1.125	9.059	24.61	0.8745	0.1468	2.456	1.154	7.260
DINO	19.83	0.6904	0.3074	1.770	1.098	5.542	20.38	0.7876	0.2109	2.362	1.211	7.103	21.83	0.8019	0.2498	2.370	1.126	7.559	24.45	0.8758	0.1440	2.006	1.172	5.859
SAM	19.11	0.6650	0.3252	2.495	1.110	8.064	19.99	0.7774	0.2224	3.307	1.478	8.919	21.14	0.7897	0.2618	3.084	1.175	9.145	24.67	0.8732	0.1468	2.560	1.176	7.627
CLIP	19.33	0.6835	0.3158	1.596	1.009	5.203	20.26	0.7769	0.2193	2.338	1.180	6.781	21.76	0.8032	0.2575	2.244	1.027	7.124	24.54	0.8747	0.1420	2.090	1.115	6.117
RADIO	19.82	0.6949	0.2933	1.310	1.157	4.253	21.47	0.8114	0.1787	1.294	1.089	4.394	21.90	0.8080	0.2368	1.412	1.030	4.784	25.04	0.8790	0.1382	1.718	1.216	4.939
MAE	18.92	0.6517	0.3354	2.562	1.117	7.677	19.89	0.7696	0.2271	3.025	1.254	8.707	21.20	0.7911	0.2601	2.813	1.149	8.615	24.34	0.8736	0.1467	2.416	1.209	7.116
SD	18.99	0.6659	0.3234	3.268	1.365	9.850	19.77	0.7726	0.2285	3.799	1.500	10.761	20.83	0.7966	0.2579	4.145	1.346	12.603	24.56	0.8727	0.1511	3.176	1.275	10.012
IUVRGB	14.62	0.5387	0.4266	8.041	11.738	49.719	15.98	0.6840	0.3147	19.184	17.793	50.164	14.72	0.6881	0.3827	13.994	30.404	51.205	19.44	0.8207	0.1996	9.536	7.047	47.307

	Scan114 (DTU)						Scan118 (DTU)						Scan12 (DTU)						Scan13 (DTU)					
Feature	PSNR ↑	SSIM ↑	LPIPS ↓	Acc. ↓	Comp. ↓	Dist. ↓	PSNR ↑	SSIM ↑	LPIPS ↓	Acc. ↓	Comp. ↓	Dist. ↓	PSNR ↑	SSIM ↑	LPIPS ↓	Acc. ↓	Comp. ↓	Dist. ↓	PSNR ↑	SSIM ↑	LPIPS ↓	Acc. ↓	Comp. ↓	Dist. ↓
DUSt3R	21.94	0.7905	0.2181	1.865	1.007	5.171	28.17	0.8775	0.1451	1.529	1.043	4.948	22.49	0.7944	0.2397	2.291	1.215	6.273	21.20	0.8032	0.2638	1.338	0.874	5.014
MASt3R	22.79	0.8064	0.2092	1.575	0.972	4.765	28.01	0.8739	0.1479	1.633	1.055	5.120	22.43	0.7909	0.2430	2.298	1.135	6.066	21.95	0.8136	0.2472	1.122	0.805	4.217
MiDaS	22.56	0.8001	0.2174	1.941	1.030	5.726	27.78	0.8737	0.1489	1.793	1.073	5.662	21.76	0.7758	0.2535	3.084	1.454	8.112	20.79	0.7946	0.2757	1.759	0.911	5.775
DINOv2	22.21	0.7932	0.2217	2.199	0.980	6.284	27.42	0.8652	0.1571	1.967	1.062	6.085	22.11	0.7845	0.2493	2.682	1.141	7.344	20.79	0.7929	0.2815	1.709	0.836	6.172
DINO	22.35	0.7948	0.2133	1.705	0.972	4.866	28.66	0.8791	0.1444	1.582	1.044	5.082	22.56	0.7972	0.2361	2.112	1.106	6.145	21.35	0.8074	0.2564	1.364	0.880	4.737
SAM	22.27	0.7961	0.2212	2.478	1.013	6.725	27.78	0.8646	0.1602	2.342	1.059	7.312	21.50	0.7700	0.2600	3.338	1.249	8.282	20.15	0.7800	0.2953	2.701	0.991	6.760
CLIP	22.37	0.7996	0.2112	1.588	0.954	4.819	27.91	0.8773	0.1442	1.507	0.997	4.836	22.71	0.7920	0.2435	2.162	0.973	6.191	21.17	0.7989	0.2671	1.420	0.824	4.752
RADIO	22.90	0.8059	0.2027	1.141	0.993	3.295	28.59	0.8844	0.1370	1.348	1.101	4.351	23.74	0.8203	0.2085	1.663	1.101	4.984	22.22	0.8191	0.2217	0.891	0.798	3.072
MAE	22.09	0.7908	0.2236	2.287	0.996	6.570	28.00	0.8699	0.1541	1.852	1.039	5.902	21.55	0.7705	0.2584	3.252	1.367	7.897	20.27	0.7889	0.2844	2.082	0.930	6.353
SD	21.57	0.7872	0.2301	4.060	1.264	10.930	27.59	0.8662	0.1585	2.248	1.189	7.502	21.31	0.7702	0.2626	4.415	1.626	10.415	20.13	0.7817	0.2943	2.686	1.057	7.807
IUVRGB	16.85	0.7277	0.2781	9.070	11.806	38.664	19.50	0.7479	0.2186	5.057	12.450	37.964	16.74	0.6725	0.3426	12.282	14.932	43.464	13.75	0.6236	0.4036	15.148	10.411	35.470

	Scan15 (DTU)						Scan24 (DTU)						Scan29 (DTU)						Scan32 (DTU)					
Feature	PSNR ↑	SSIM ↑	LPIPS ↓	Acc. ↓	Comp. ↓	Dist. ↓	PSNR ↑	SSIM ↑	LPIPS ↓	Acc. ↓	Comp. ↓	Dist. ↓	PSNR ↑	SSIM ↑	LPIPS ↓	Acc. ↓	Comp. ↓	Dist. ↓	PSNR ↑	SSIM ↑	LPIPS ↓	Acc. ↓	Comp. ↓	Dist. ↓
DUSt3R	18.57	0.6787	0.3035	1.763	1.221	5.639	19.10	0.6668	0.3027	2.507	1.488	7.401	21.85	0.8218	0.1702	1.999	1.360	6.251	19.60	0.8260	0.1961	2.468	1.473	6.719
MASt3R	18.45	0.6750	0.3061	1.759	1.123	5.530	19.58	0.6703	0.2967	2.230	1.370	6.749	22.00	0.8270	0.1651	1.926	1.378	5.861	19.54	0.8253	0.1944	2.507	1.466	6.774
MiDaS	18.22	0.6641	0.3127	2.432	1.353	7.241	18.92	0.6568	0.3117	2.914	1.496	8.633	21.61	0.8150	0.1757	2.283	1.370	7.391	18.96	0.8174	0.2037	3.349	1.760	8.655
DINOv2	18.20	0.6669	0.3114	2.243	1.248	7.250	19.19	0.6603	0.3091	2.903	1.281	9.119	21.66	0.8136	0.1752	2.410	1.329	7.700	18.96	0.8133	0.2050	3.209	1.637	8.330
DINO	18.31	0.6750	0.3052	1.694	1.137	5.422	19.56	0.6707	0.2990	2.411	1.406	7.569	21.94	0.8225	0.1706	2.010	1.379	5.949	19.29	0.8202	0.1984	2.531	1.448	6.830
SAM	18.07	0.6631	0.3129	2.201	1.190	7.048	18.92	0.6512	0.3138	2.963	1.349	9.439	21.78	0.8131	0.1757	2.414	1.313	7.941	19.03	0.8100	0.2093	3.518	1.660	9.171
CLIP	18.80	0.6825	0.3043	1.576	1.043	5.160	18.94	0.6618	0.3085	2.604	1.365	7.545	22.05	0.8265	0.1682	1.902	1.320	5.875	19.39	0.8212	0.1946	2.535	1.405	6.875
RADIO	18.62	0.6779	0.2958	1.369	1.150	4.248	19.80	0.6665	0.2910	2.058	1.533	6.030	21.74	0.8267	0.1600	1.670	1.543	4.793	19.92	0.8319	0.1808	1.891	1.441	5.097
MAE	18.11	0.6633	0.3125	2.182	1.227	6.980	19.22	0.6611	0.3048	2.847	1.372	8.810	21.60	0.8152	0.1736	2.430	1.347	7.603	19.24	0.8151	0.2049	3.177	1.537	8.334
SD	17.54	0.6347	0.3347	4.074	1.528	10.799	18.64	0.6510	0.3192	4.660	1.754	13.133	21.40	0.8034	0.1823	3.319	1.476	10.211	18.66	0.8123	0.2125	4.868	2.008	11.682
IUVRGB	12.93	0.4809	0.4590	8.474	12.219	38.996	15.83	0.5860	0.3908	12.933	11.389	42.181	15.60	0.6658	0.2885	17.992	29.831	52.289	14.02	0.7528	0.2968	12.048	19.586	43.636

	Scan33 (DTU)						Scan34 (DTU)						Scan48 (DTU)						Scan49 (DTU)					
Feature	PSNR ↑	SSIM ↑	LPIPS ↓	Acc. ↓	Comp. ↓	Dist. ↓	PSNR ↑	SSIM ↑	LPIPS ↓	Acc. ↓	Comp. ↓	Dist. ↓	PSNR ↑	SSIM ↑	LPIPS ↓	Acc. ↓	Comp. ↓	Dist. ↓	PSNR ↑	SSIM ↑	LPIPS ↓	Acc. ↓	Comp. ↓	Dist. ↓
DUSt3R	18.57	0.7078	0.2181	3.672	1.821	8.404	19.86	0.5645	0.2840	2.079	1.212	5.700	19.71	0.8860	0.1773	2.862	1.537	8.532	23.29	0.8413	0.1768	3.346	1.464	8.709
MASt3R	18.73	0.7126	0.2169	3.465	1.738	8.111	20.29	0.5725	0.2775	1.940	1.195	4.979	19.56	0.8803	0.1789	2.902	1.523	8.263	23.32	0.8440	0.1766	3.247	1.452	8.239
MiDaS	18.49	0.7017	0.2229	4.011	1.821	9.984	19.63	0.5622	0.2883	2.343	1.300	5.974	19.49	0.8792	0.1816	3.535	1.628	10.183	22.92	0.8396	0.1821	4.018	1.618	10.061
DINOv2	18.26	0.7003	0.2242	4.573	1.870	10.362	19.85	0.5582	0.2908	2.879	1.235	7.749	19.02	0.8727	0.1860	4.418	1.686	12.208	22.55	0.8385	0.1841	3.743	1.462	9.546
DINO	18.60	0.7144	0.2174	3.434	1.705	8.322	20.87	0.5887	0.2743	1.898	1.196	5.025	19.44	0.8748	0.1809	2.854	1.614	8.390	23.09	0.8421	0.1787	3.556	1.565	8.902
SAM	18.24	0.6984	0.2258	3.955	1.764	9.505	19.67	0.5571	0.2938	2.840	1.293	7.200	18.85	0.8729	0.1847	4.335	1.765	11.564	22.88	0.8375	0.1839	3.891	1.415	10.560
CLIP	18.55	0.7044	0.2189	3.648	1.658	8.600	20.10	0.5662	0.2826	1.965	1.119	5.733	19.31	0.8725	0.1816	3.006	1.376	9.422	22.92	0.8436	0.1765	3.042	1.303	7.844
RADIO	19.28	0.7348	0.2038	3.027	1.814	7.160	20.78	0.5940	0.2669	1.494	1.223	3.876	19.04	0.8611	0.1801	2.071	1.469	6.436	23.28	0.8462	0.1610	2.685	1.563	6.980
MAE	18.42	0.7030	0.2223	3.915	1.784	9.406	19.82	0.5534	0.2910	2.553	1.222	7.357	19.21	0.8766	0.1809	3.758	1.751	11.964	22.49	0.8365	0.1837	3.778	1.551	9.711
SD	18.32	0.7018	0.2267	5.473	2.048	12.500	19.70	0.5529	0.2991	3.763	1.415	9.867	19.20	0.8763	0.1863	7.171	2.325	18.157	22.62	0.8367	0.1888	5.333	1.778	13.222
IUVRGB	14.94	0.6524	0.2880	15.037	13.632	38.765	15.62	0.5023	0.3684	10.727	11.855	48.969	16.33	0.8397	0.2324	12.046	23.712	42.878	18.01	0.7784	0.2510	14.492	21.024	45.499

	Scan62 (DTU)						Scan77 (DTU)					
Feature	PSNR ↑	SSIM ↑	LPIPS ↓	Acc. ↓	Comp. ↓	Dist. ↓	PSNR ↑	SSIM ↑	LPIPS ↓	Acc. ↓	Comp. ↓	Dist. ↓
DUSt3R	21.41	0.8650	0.1774	1.964	1.255	5.823	22.91	0.9291	0.0748	5.652	1.733	12.906
MASt3R	21.47	0.8677	0.1764	1.830	1.199	5.510	22.81	0.9289	0.0735	5.084	1.729	12.467
MiDaS	20.81	0.8591	0.1865	2.520	1.316	7.671	22.70	0.9275	0.0755	5.656	1.769	13.939
DINOv2	20.87	0.8552	0.1896	2.587	1.217	7.219	22.67	0.9284	0.0768	6.277	1.817	14.406
DINO	21.02	0.8629	0.1797	2.014	1.243	5.919	23.35	0.9315	0.0735	5.531	1.775	13.035
SAM	20.66	0.8592	0.1870	2.786	1.243	7.738	22.62	0.9283	0.0749	5.698	1.614	13.569
CLIP	21.04	0.8666	0.1778	1.872	1.132	5.677	22.71	0.9298	0.0737	4.913	1.535	11.381
RADIO	22.04	0.8739	0.1583	1.300	1.118	4.110	23.57	0.9350	0.0720	5.071	1.853	12.908
MAE	20.54	0.8570	0.1894	2.567	1.236	7.197	23.05	0.9289	0.0751	5.556	1.689	12.882
SD	20.57	0.8591	0.1913	3.412	1.422	9.608	22.67	0.9272	0.0775	7.049	2.038	17.692
IUVRGB	14.18	0.7656	0.3140	12.746	15.323	47.182	22.33	0.9190	0.0851	16.685	24.550	50.457

Table R.6. Quantitative Results for Individual Scenes in the **G**eometry mode on the DTU dataset