

# The KITTI Vision Benchmark Suite

A project of Karlsruhe Institute of Technology  
and Toyota Technological Institute at Chicago



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## Method

### Unambiguous Pyramid Cost Volumes Fusion for Stereo Matching [UPFNet] [Anonymous Submission]

Submitted on 23 Oct. 2021 06:03 by  
[Anonymous Submission]

Running time: 0.25 s  
Environment: 1 core @ 2.5 Ghz (Python)

Method Description:  
900epoch  
Parameters:  
0.9  
Latex Bibtex:

## Detailed Results

This page provides detailed results for the method(s) selected. For the first 20 test images, the percentage of erroneous pixels is depicted in the table. We use the error metric described in [Object Scene Flow for Autonomous Vehicles \(CVPR 2015\)](#), which considers a pixel to be correctly estimated if the disparity or flow end-point error is <3px or <5% (for scene flow this criterion needs to be fulfilled for both disparity maps and the flow map). Underneath, the left input image, the estimated results and the error maps are shown (for disp\_0/disp\_1/flow/scene\_flow, respectively). The error map uses the log-color scale described in [Object Scene Flow for Autonomous Vehicles \(CVPR 2015\)](#), depicting correct estimates (<3px or <5% error) in blue and wrong estimates in red color tones. Dark regions in the error images denote the occluded pixels which fall outside the image boundaries. The false color maps of the results are scaled to the largest ground truth disparity values / flow magnitudes.

## Test Set Average

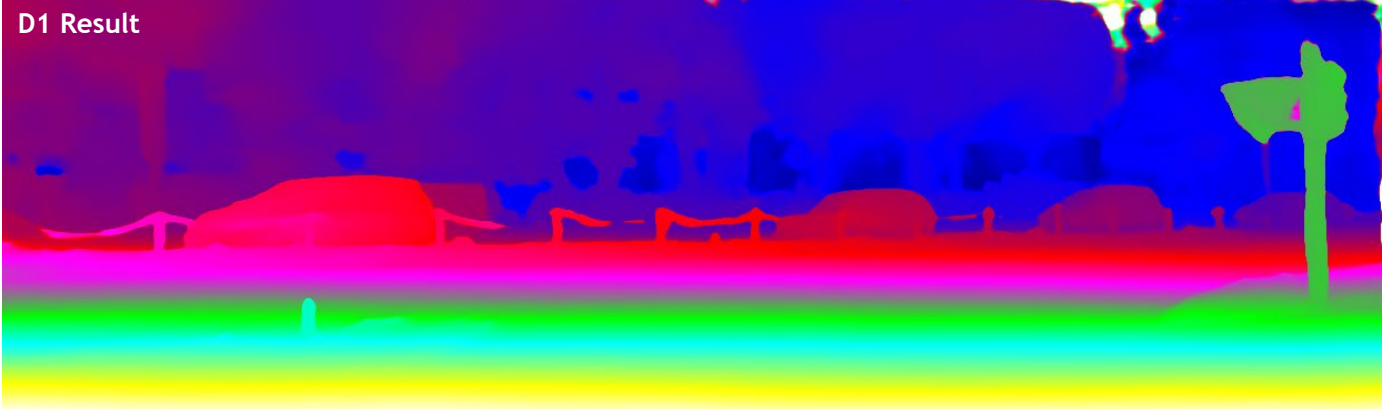
Error	D1-bg	D1-fg	D1-all
All / All	1.38	2.85	1.62
All / Est	1.38	2.85	1.62
Noc / All	1.26	2.70	1.50
Noc / Est	1.26	2.70	1.50

[This table as LaTeX](#)

## Test Image 0

Error	D1-bg	D1-fg	D1-all
All / All	1.47	1.17	1.43
All / Est	1.47	1.17	1.43
Noc / All	1.44	1.17	1.40
Noc / Est	1.44	1.17	1.40

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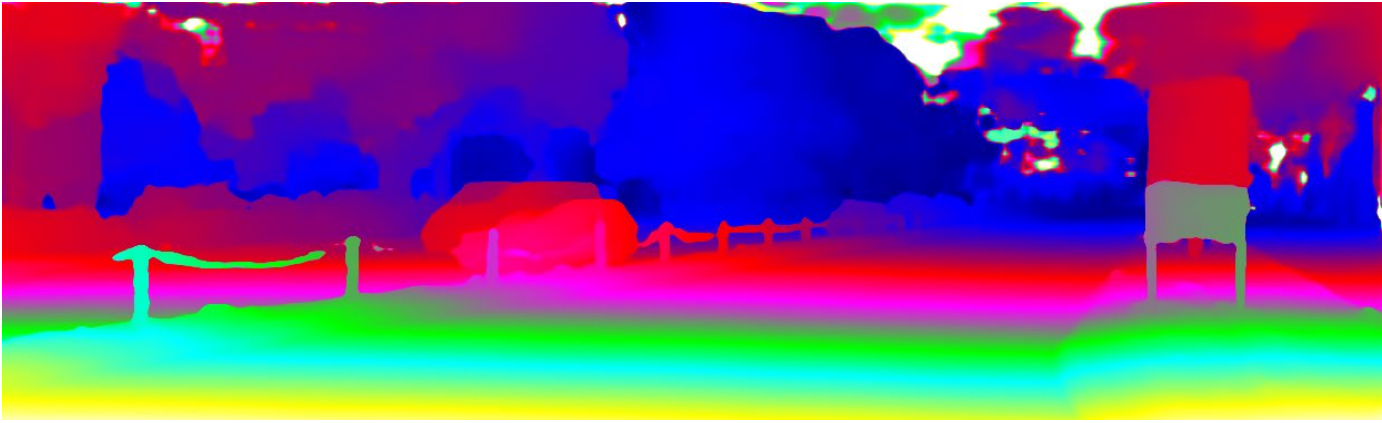
# Test Image 1

Error	D1-bg	D1-fg	D1-all
All / All	1.47	1.93	1.52
All / Est	1.47	1.93	1.52
Noc / All	1.40	1.93	1.46
Noc / Est	1.40	1.93	1.46

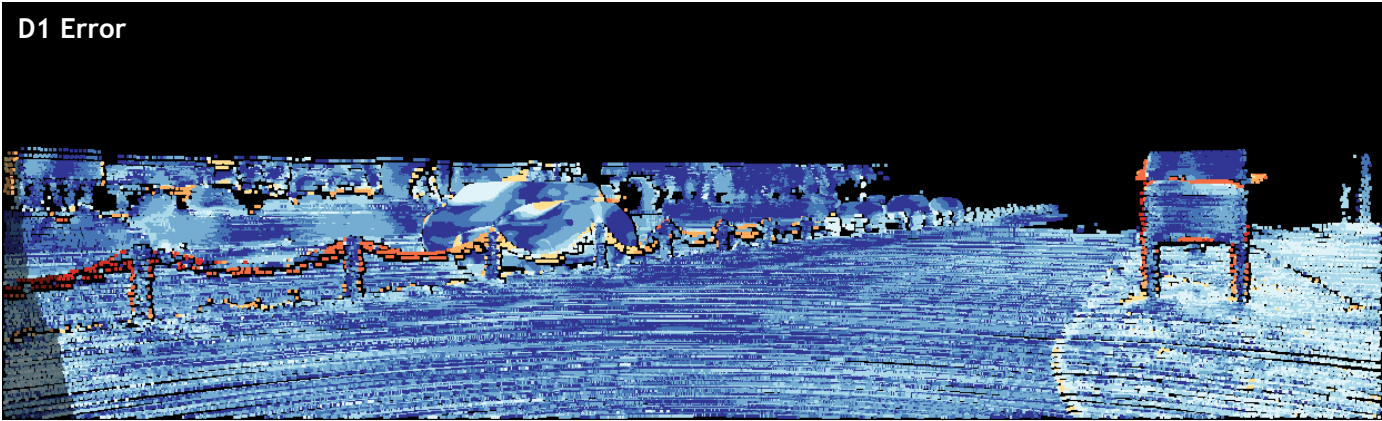
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D1 Error



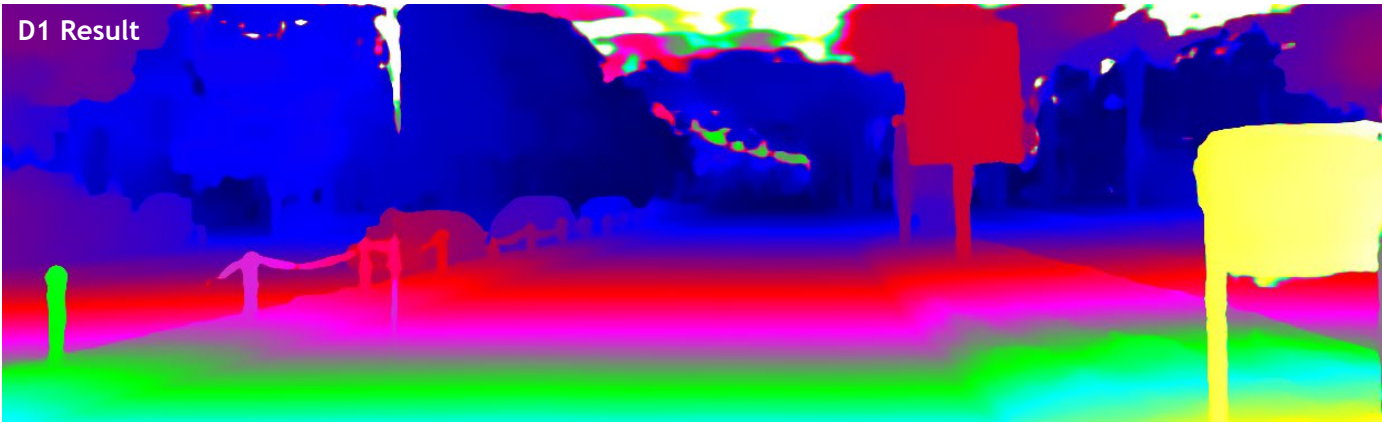
## Test Image 2

Error	D1-bg	D1-fg	D1-all
All / All	1.87	5.24	2.03
All / Est	1.87	5.24	2.03
Noc / All	1.81	5.24	1.98
Noc / Est	1.81	5.24	1.98

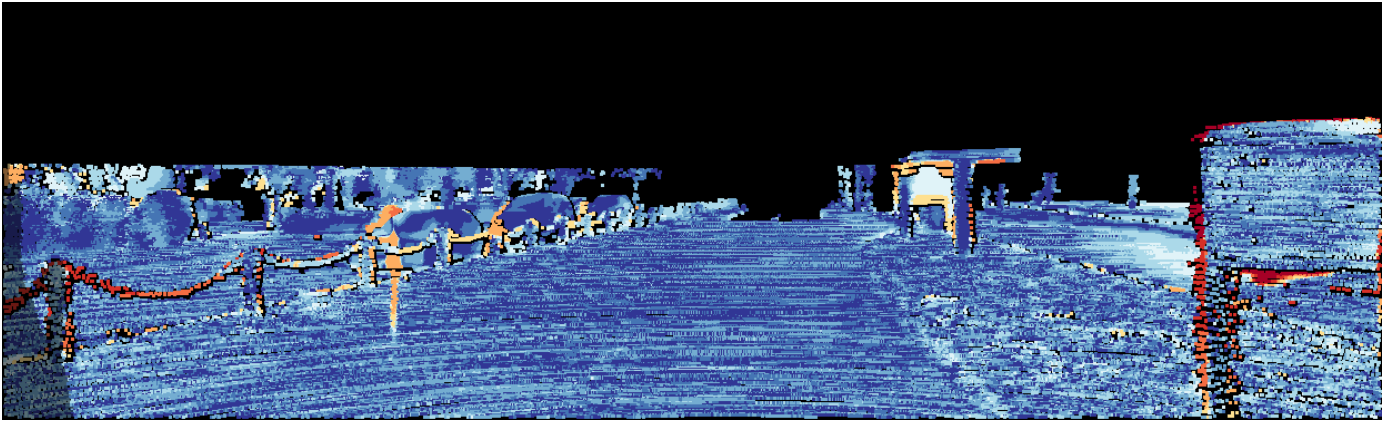
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D1 Result



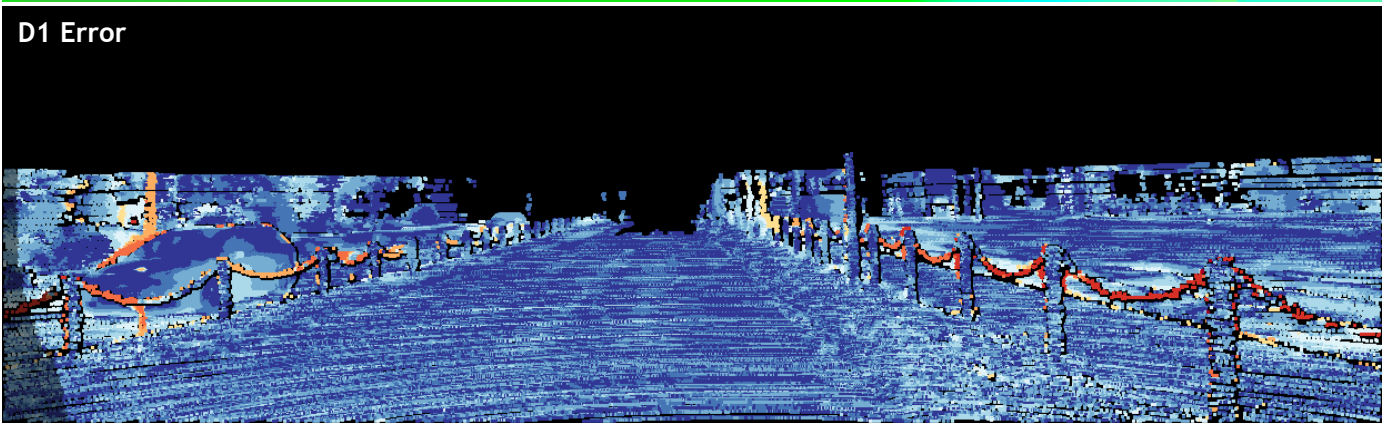




# Test Image 3

Error	D1-bg	D1-fg	D1-all
All / All	1.59	1.12	1.54
All / Est	1.59	1.12	1.54
Noc / All	1.56	1.12	1.52
Noc / Est	1.56	1.12	1.52

[This table as LaTeX](#)

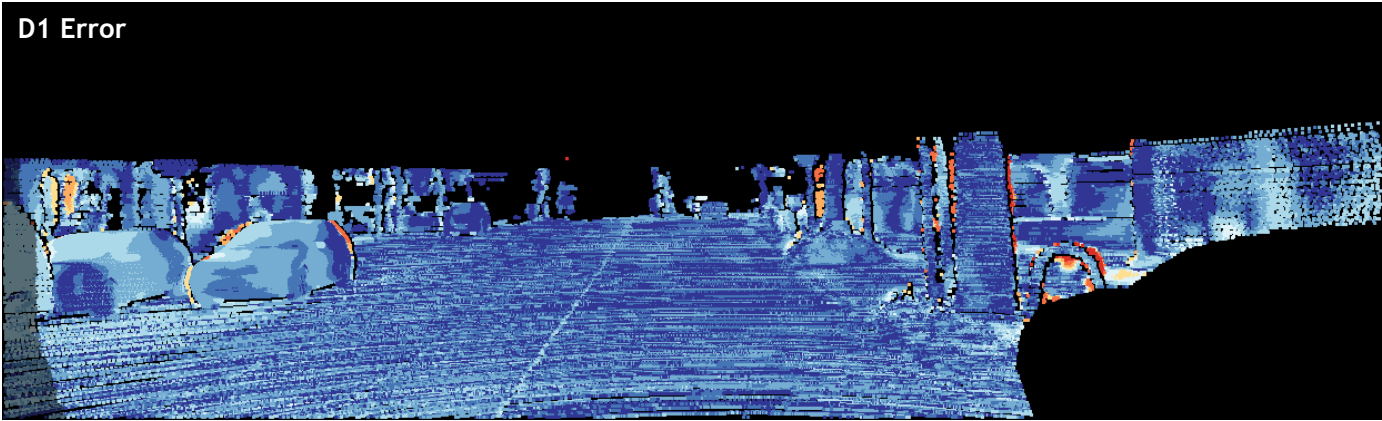
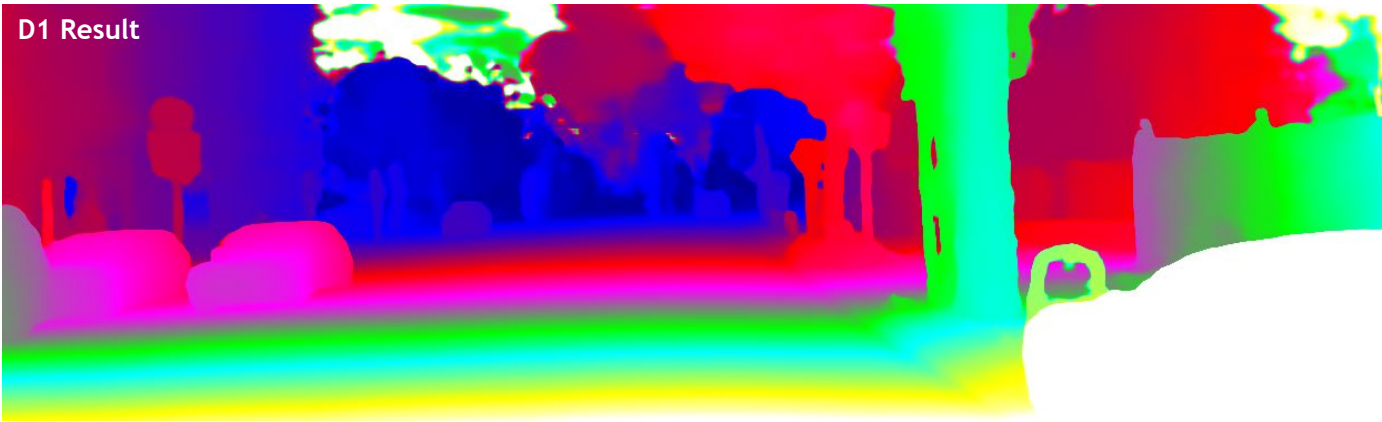




# Test Image 4

Error	D1-bg	D1-fg	D1-all
All / All	0.77	0.72	0.76
All / Est	0.77	0.72	0.76
Noc / All	0.78	0.72	0.77
Noc / Est	0.78	0.72	0.77

[This table as LaTeX](#)

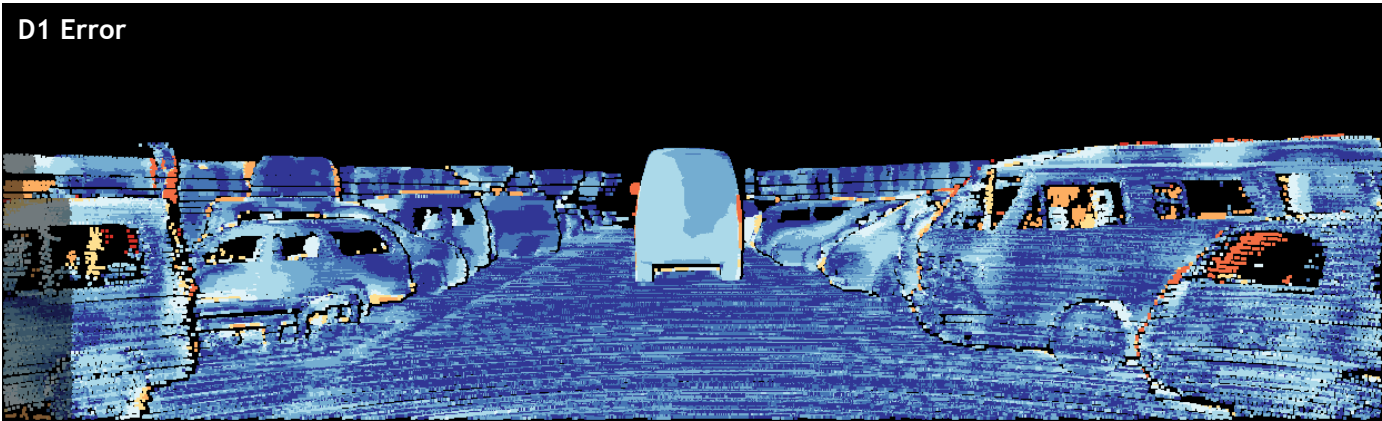
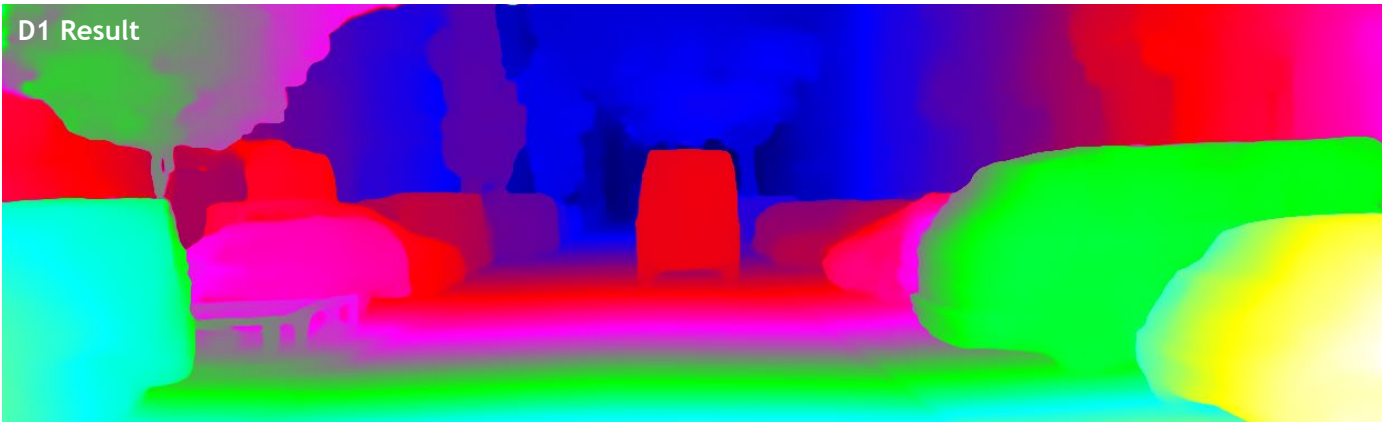


# Test Image 5

Error	D1-bg	D1-fg	D1-all
All / All	1.99	2.10	2.00
All / Est	1.99	2.10	2.00
Noc / All	1.81	2.10	1.84
Noc / Est	1.81	2.10	1.84

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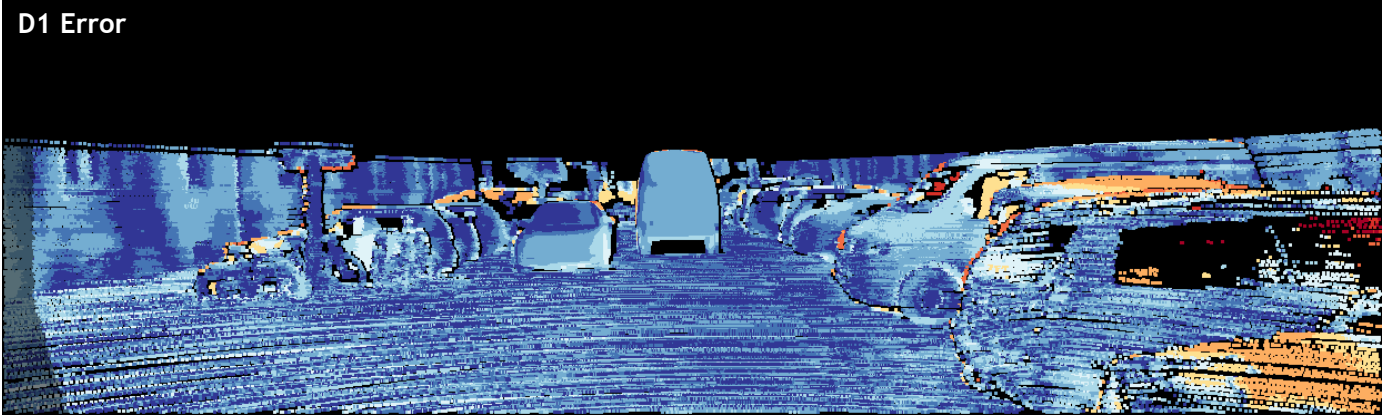
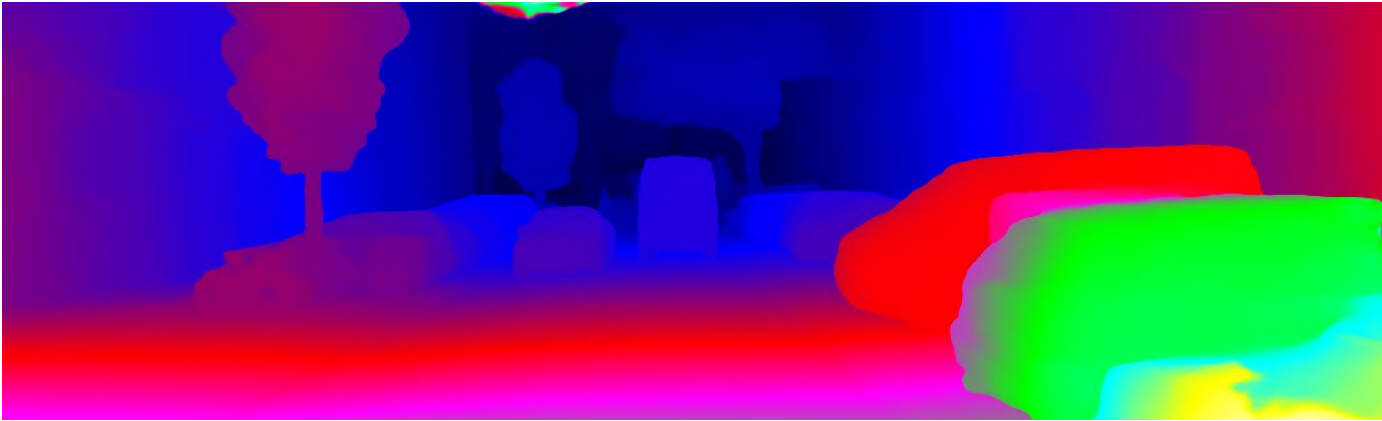
# Test Image 6

Error	D1-bg	D1-fg	D1-all
All / All	3.58	1.14	3.32
All / Est	3.58	1.14	3.32
Noc / All	3.66	1.14	3.39
Noc / Est	3.66	1.14	3.39

This table as LaTeX



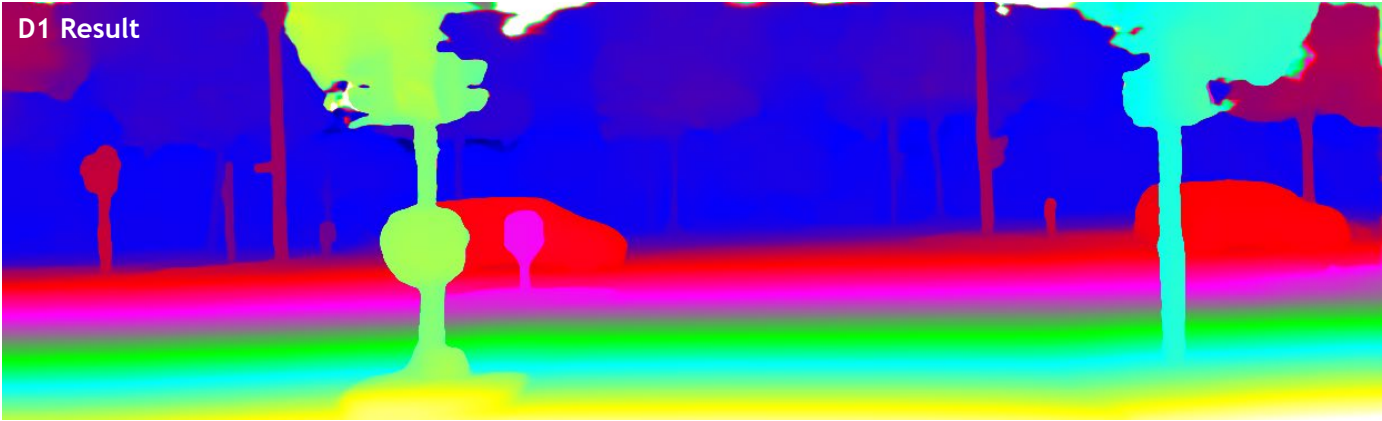


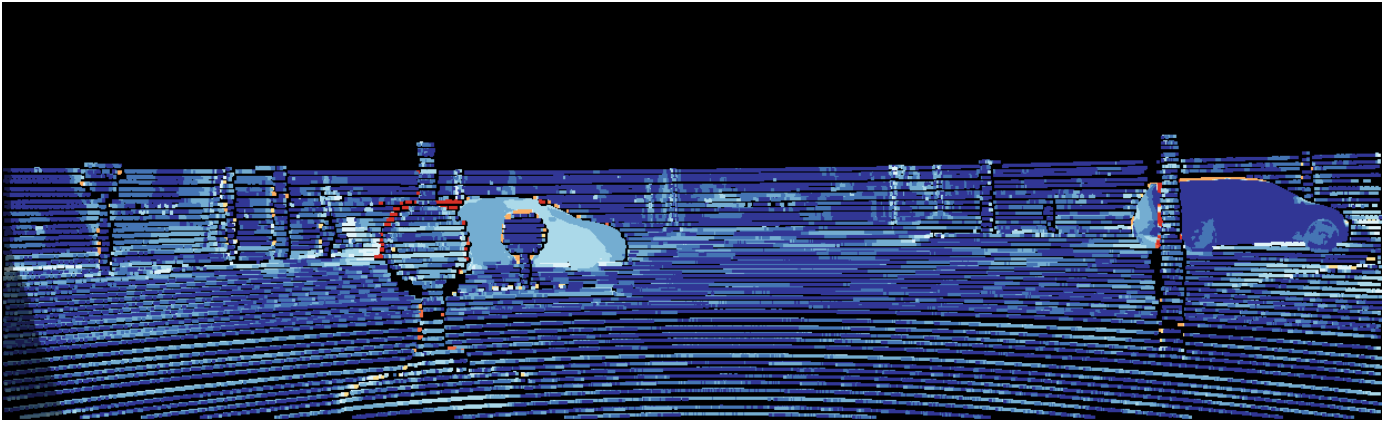


# Test Image 7

Error	D1-bg	D1-fg	D1-all
All / All	0.40	2.26	0.76
All / Est	0.40	2.26	0.76
Noc / All	0.41	2.26	0.77
Noc / Est	0.41	2.26	0.77

[This table as LaTeX](#)

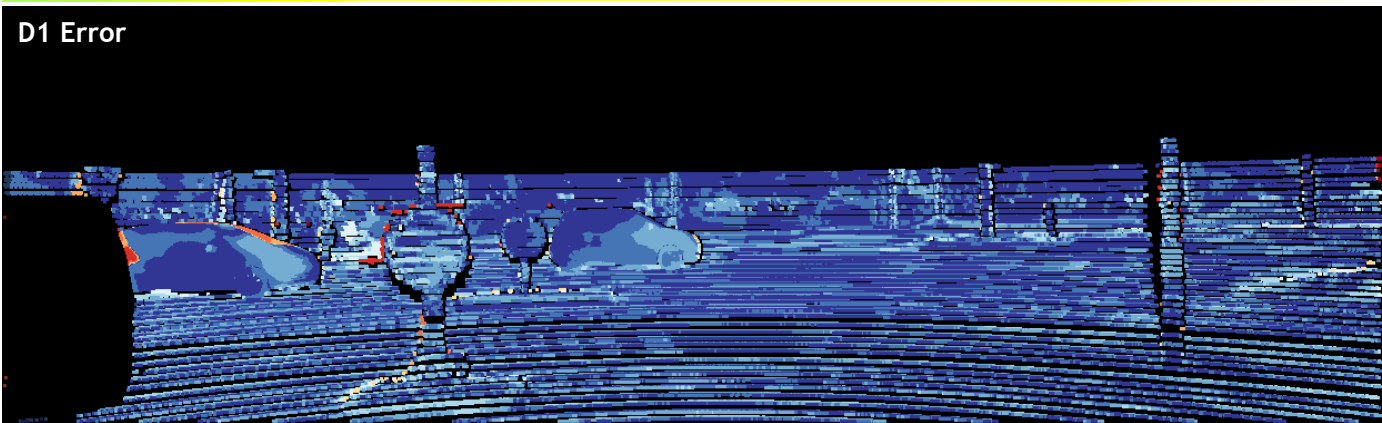
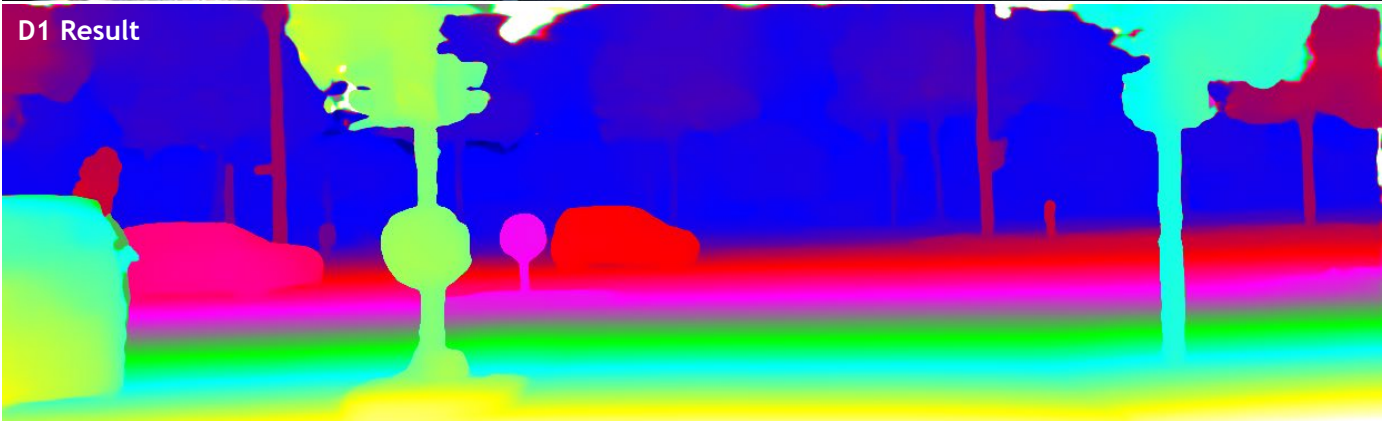




# Test Image 8

Error	D1-bg	D1-fg	D1-all
All / All	0.37	2.85	0.83
All / Est	0.37	2.85	0.83
Noc / All	0.37	2.85	0.83
Noc / Est	0.37	2.85	0.83

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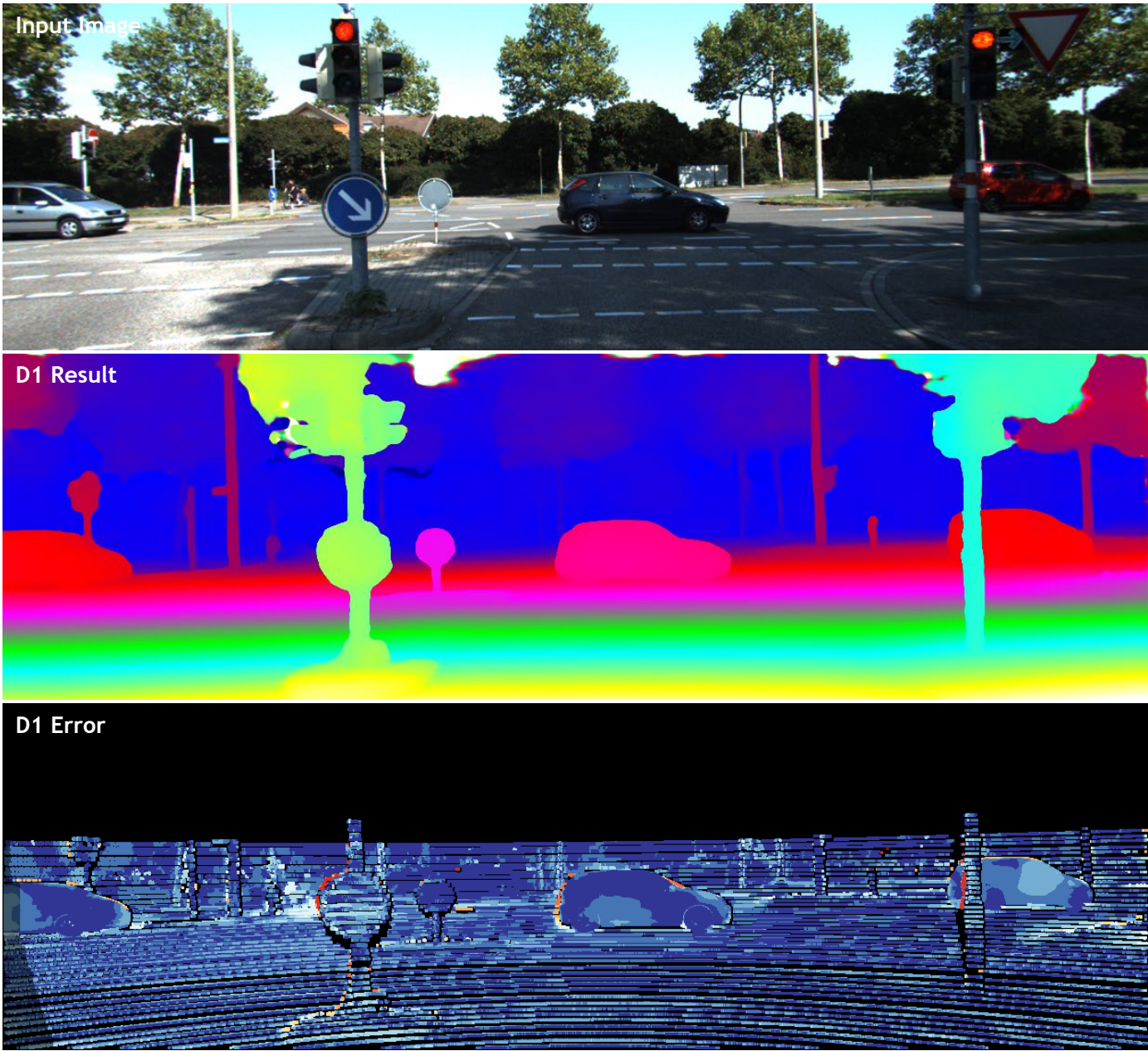




# Test Image 9

Error	D1-bg	D1-fg	D1-all
All / All	0.42	1.10	0.59
All / Est	0.42	1.10	0.59
Noc / All	0.42	1.16	0.61
Noc / Est	0.42	1.16	0.61

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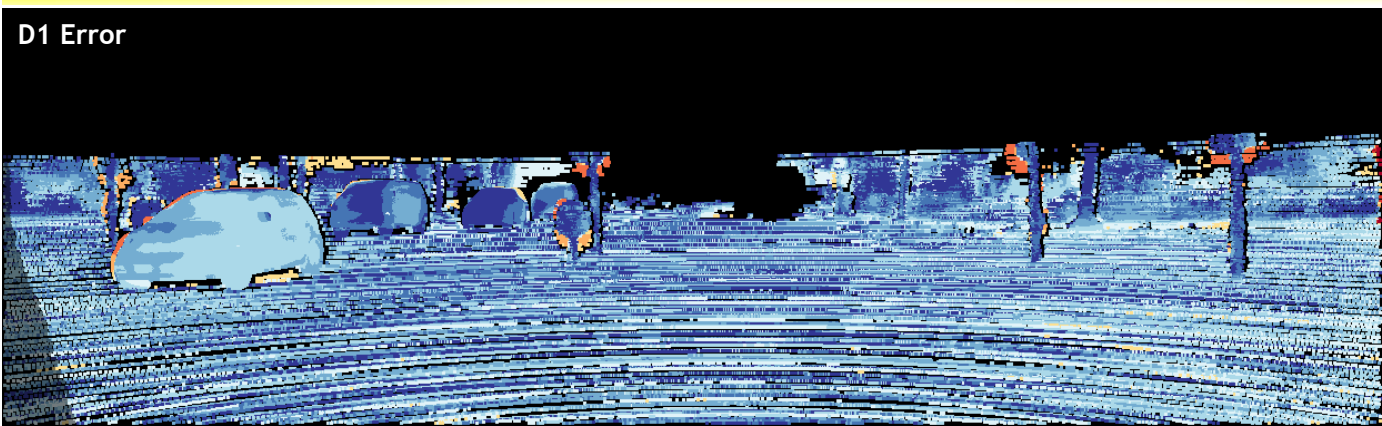
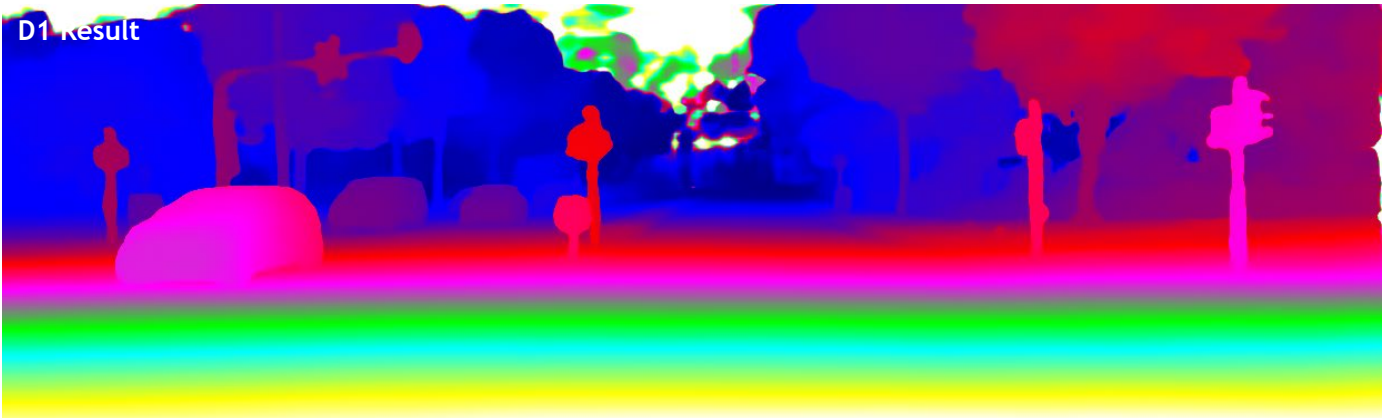


# Test Image 10

Error	D1-bg	D1-fg	D1-all
All / All	1.17	2.32	1.43
All / Est	1.17	2.32	1.43
Noc / All	1.17	2.32	1.44
Noc / Est	1.17	2.32	1.44

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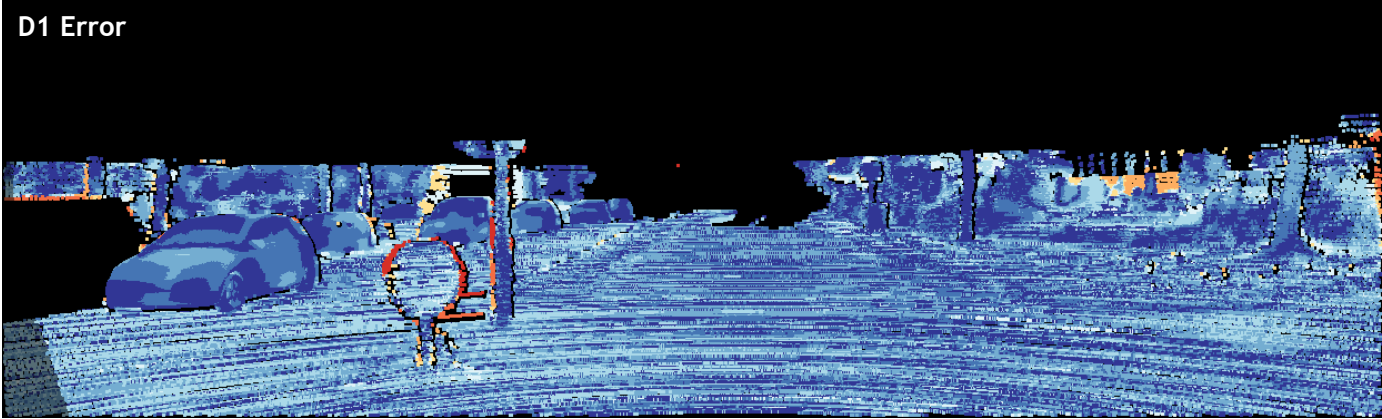
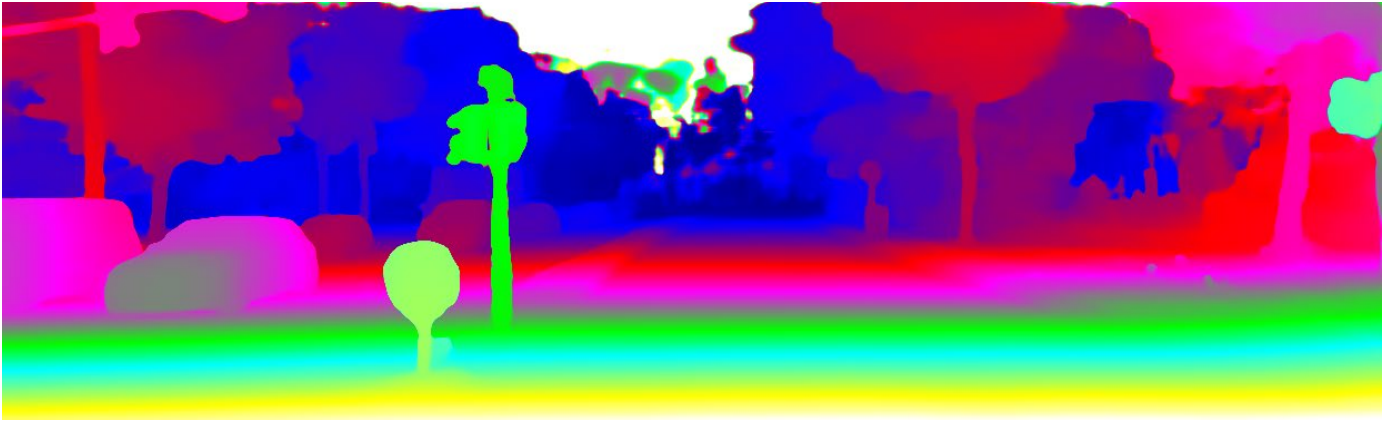
# Test Image 11

Error	D1-bg	D1-fg	D1-all
All / All	0.98	0.64	0.92
All / Est	0.98	0.64	0.92
Noc / All	0.98	0.64	0.92
Noc / Est	0.98	0.64	0.92

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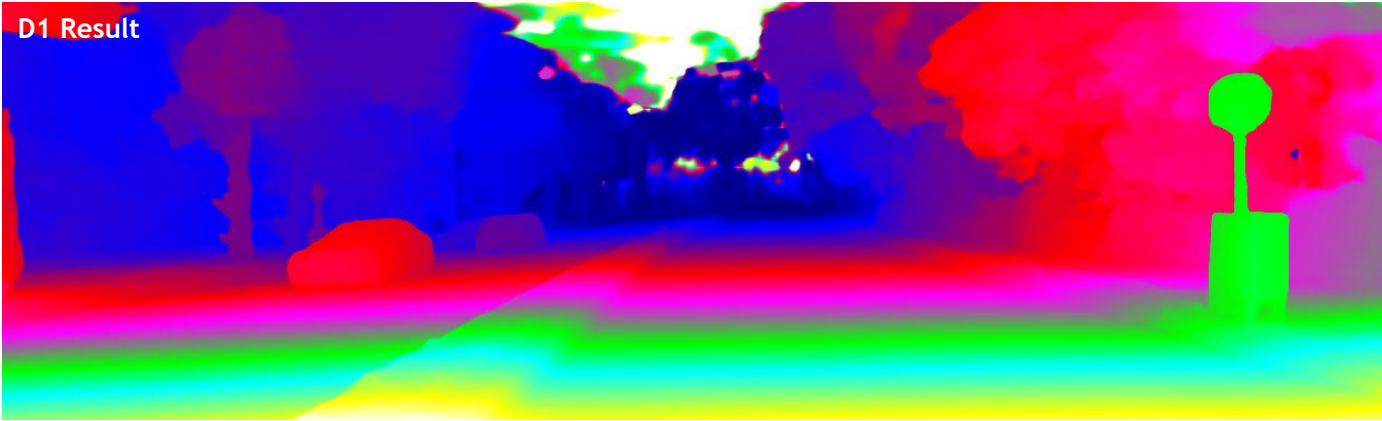




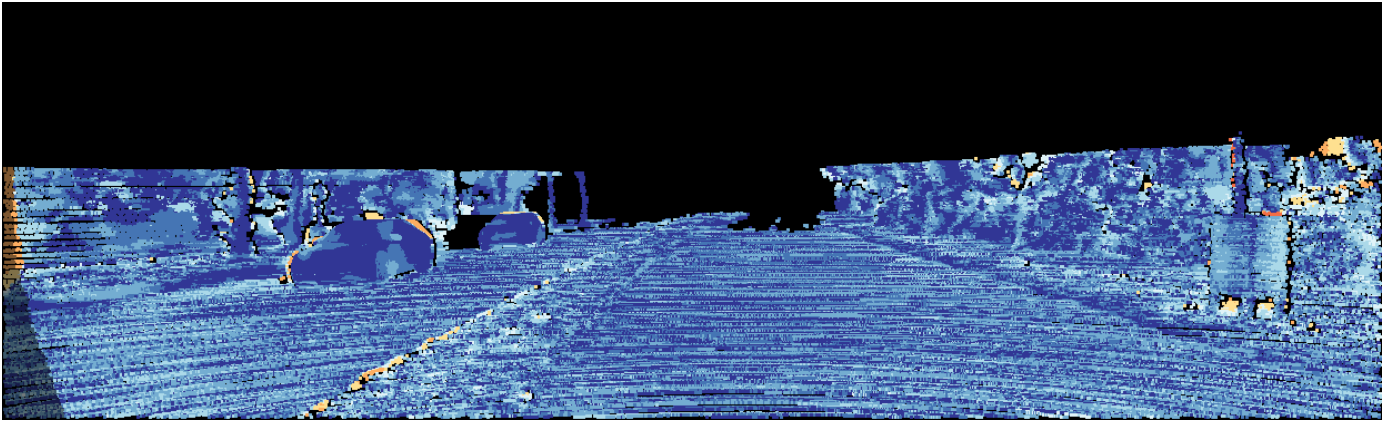
# Test Image 12

Error	D1-bg	D1-fg	D1-all
All / All	0.60	1.67	0.67
All / Est	0.60	1.67	0.67
Noc / All	0.45	1.67	0.54
Noc / Est	0.45	1.67	0.54

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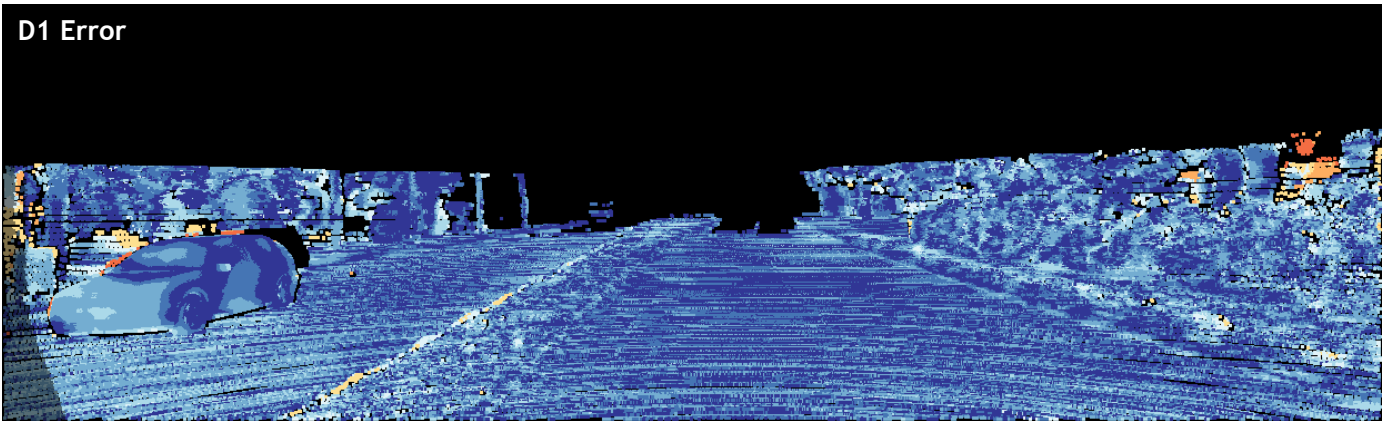
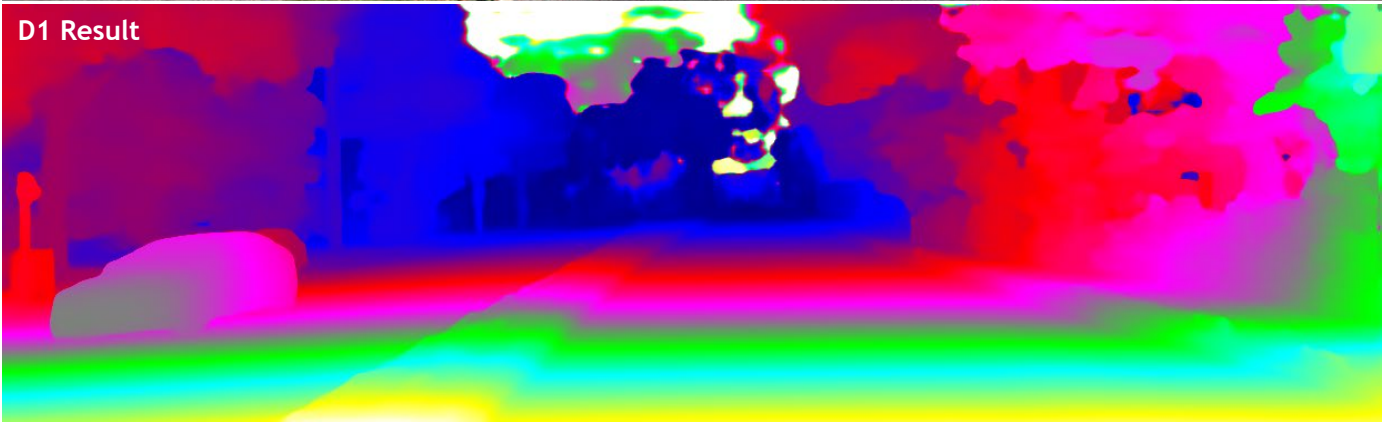




# Test Image 13

Error	D1-bg	D1-fg	D1-all
All / All	0.75	0.24	0.68
All / Est	0.75	0.24	0.68
Noc / All	0.67	0.24	0.61
Noc / Est	0.67	0.24	0.61

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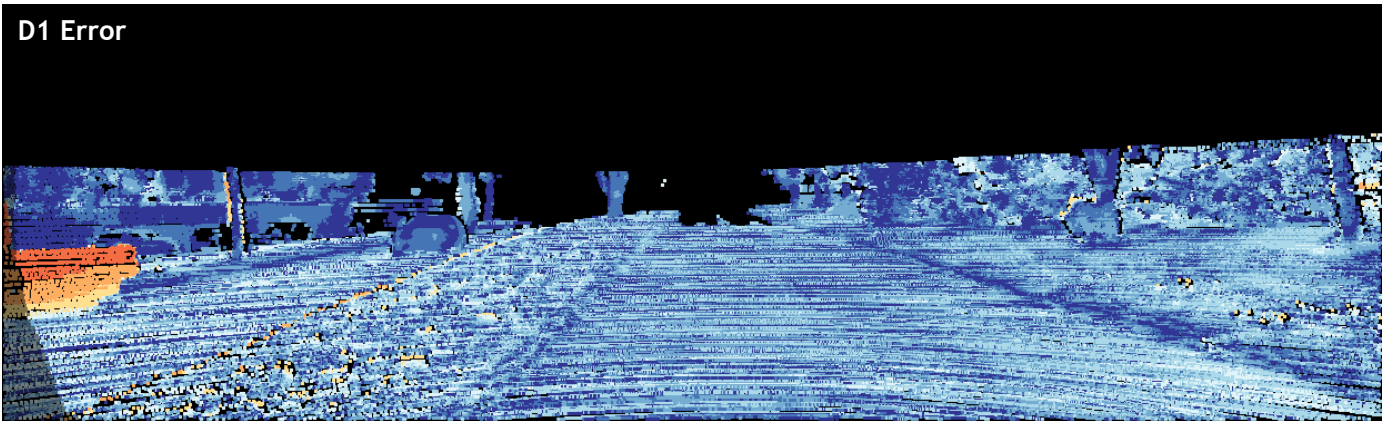
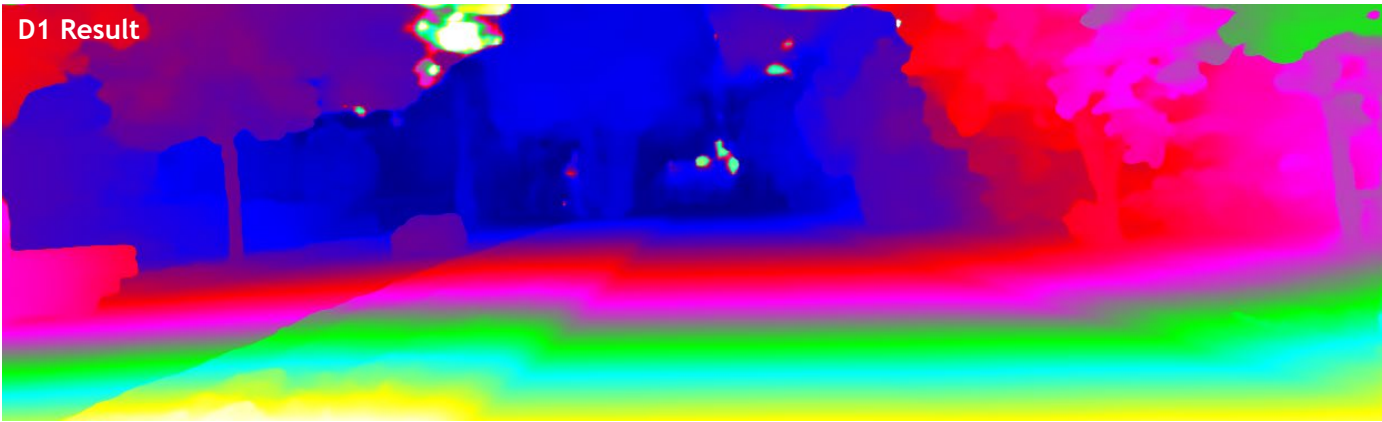




# Test Image 14

Error	D1-bg	D1-fg	D1-all
All / All	1.36	0.00	1.33
All / Est	1.36	0.00	1.33
Noc / All	1.22	0.00	1.20
Noc / Est	1.22	0.00	1.20

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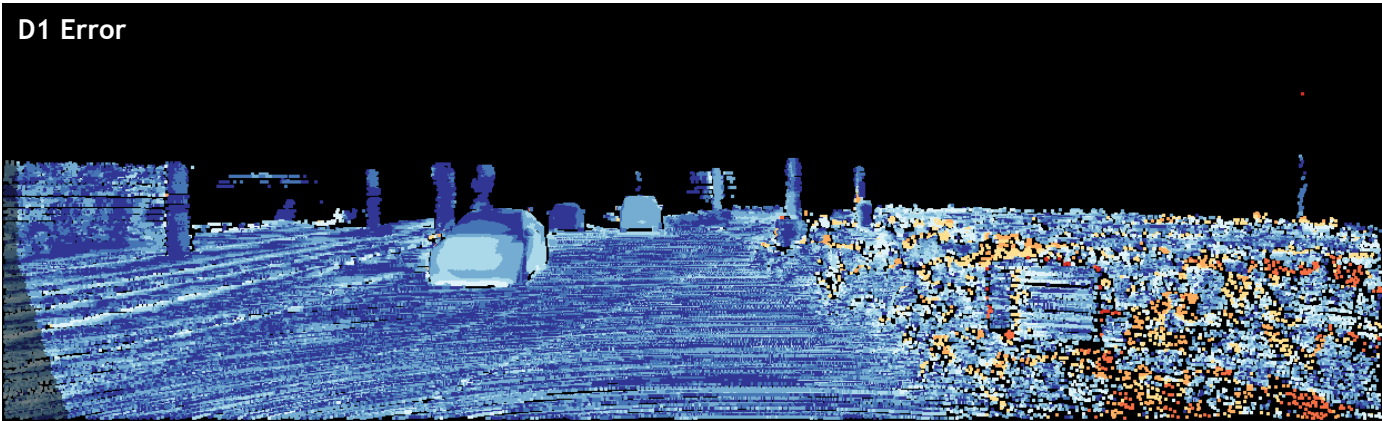
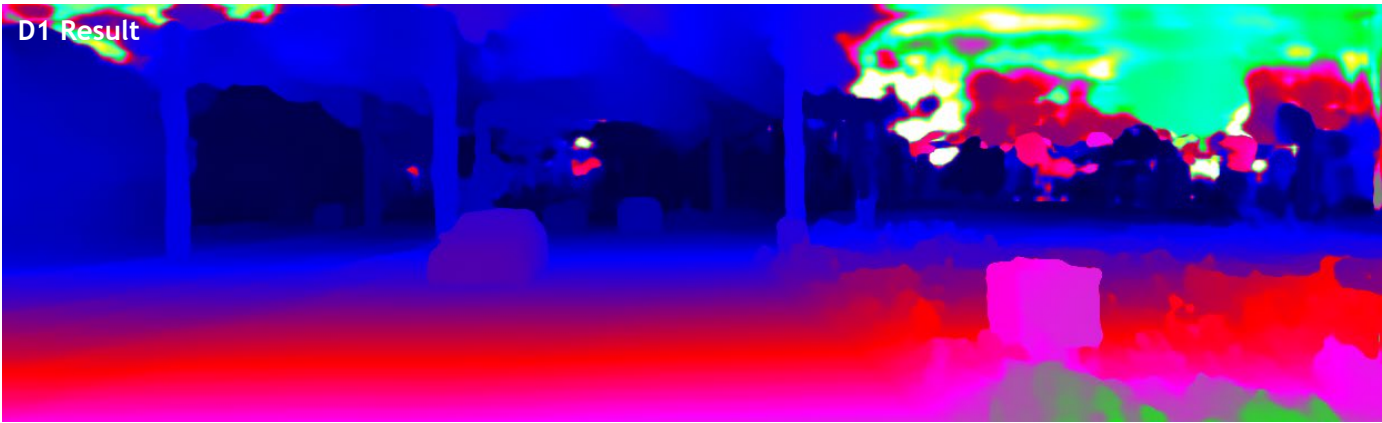


# Test Image 15

Error	D1-bg	D1-fg	D1-all
All / All	2.45	0.07	2.24
All / Est	2.45	0.07	2.24
Noc / All	2.50	0.07	2.28
Noc / Est	2.50	0.07	2.28

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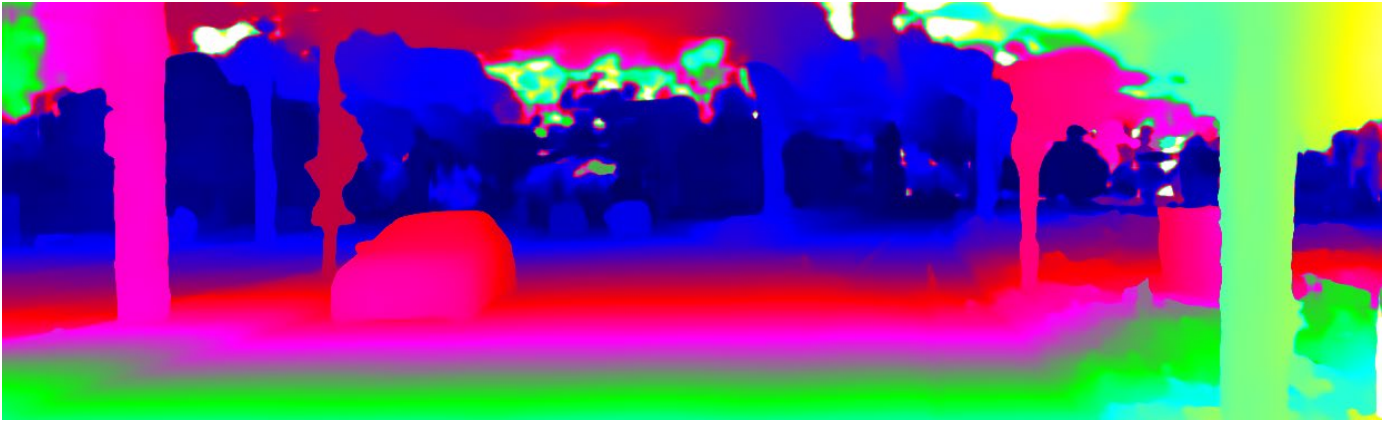
# Test Image 16

Error	D1-bg	D1-fg	D1-all
All / All	3.48	0.01	2.97
All / Est	3.48	0.01	2.97
Noc / All	3.29	0.01	2.80
Noc / Est	3.29	0.01	2.80

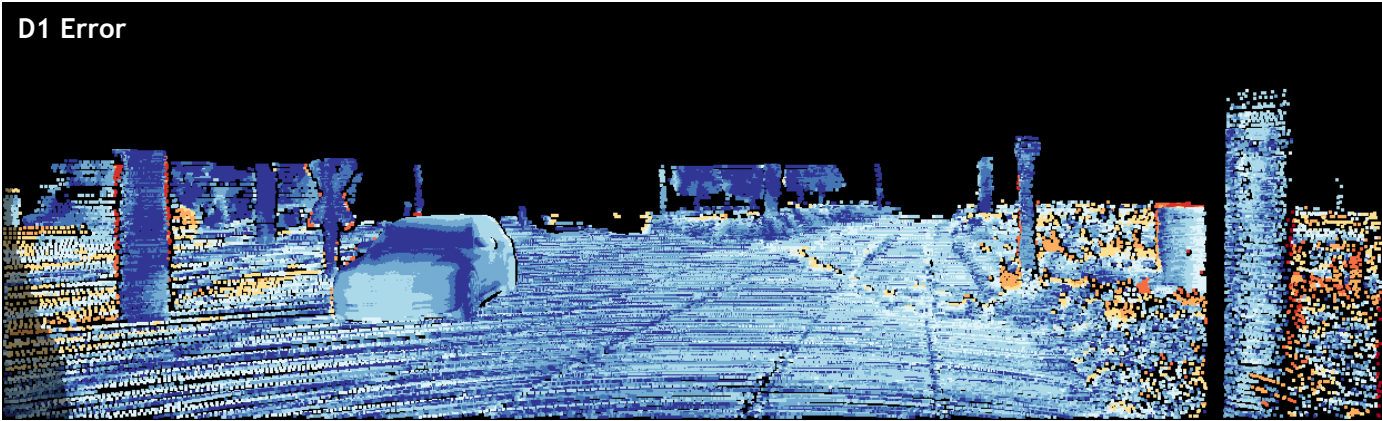
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D1 Error



# Test Image 17

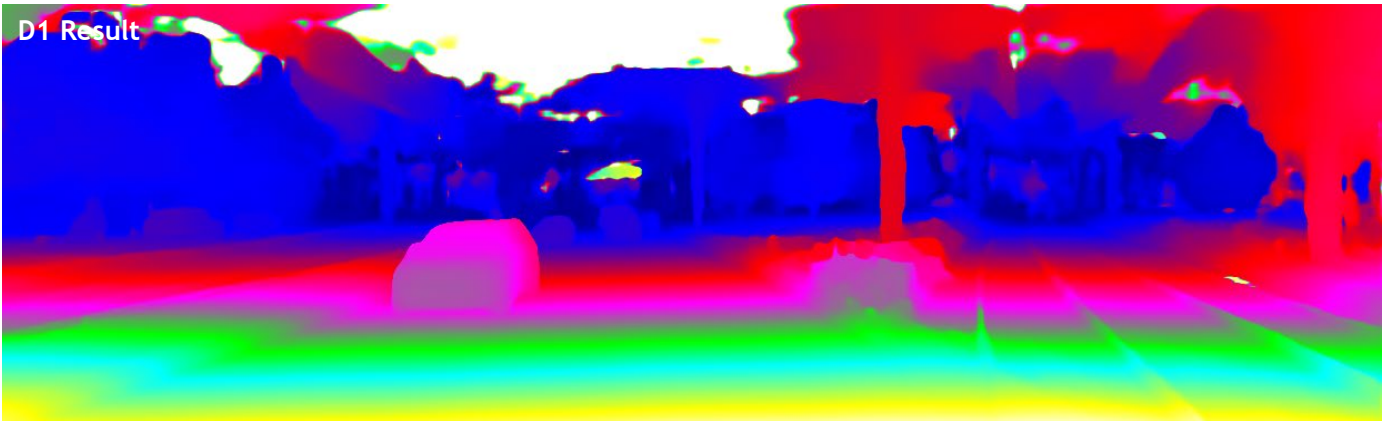
Error	D1-bg	D1-fg	D1-all
All / All	0.84	0.05	0.76
All / Est	0.84	0.05	0.76
Noc / All	0.83	0.05	0.75
Noc / Est	0.83	0.05	0.75

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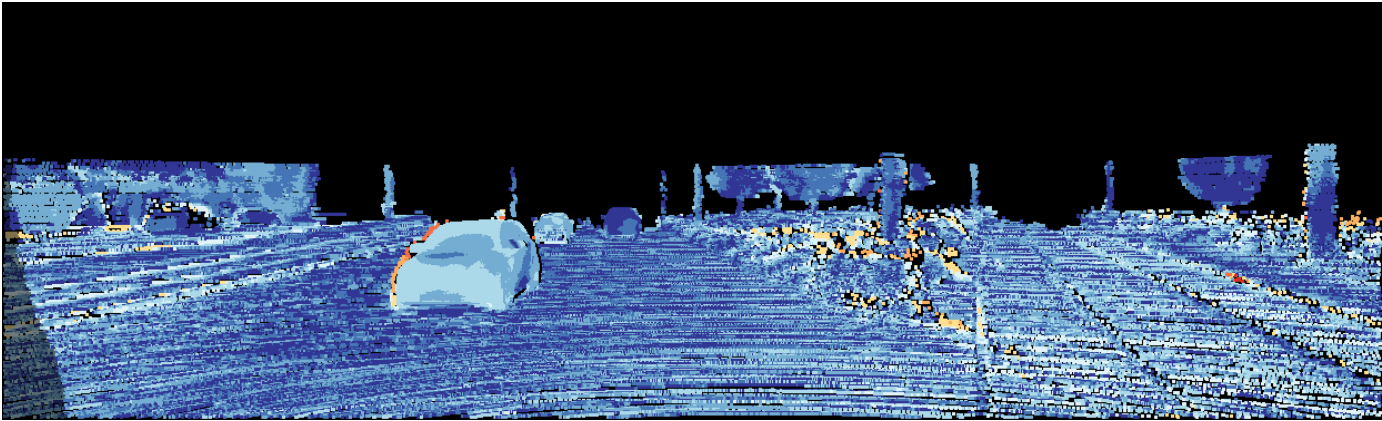
Input Image



D1 Result



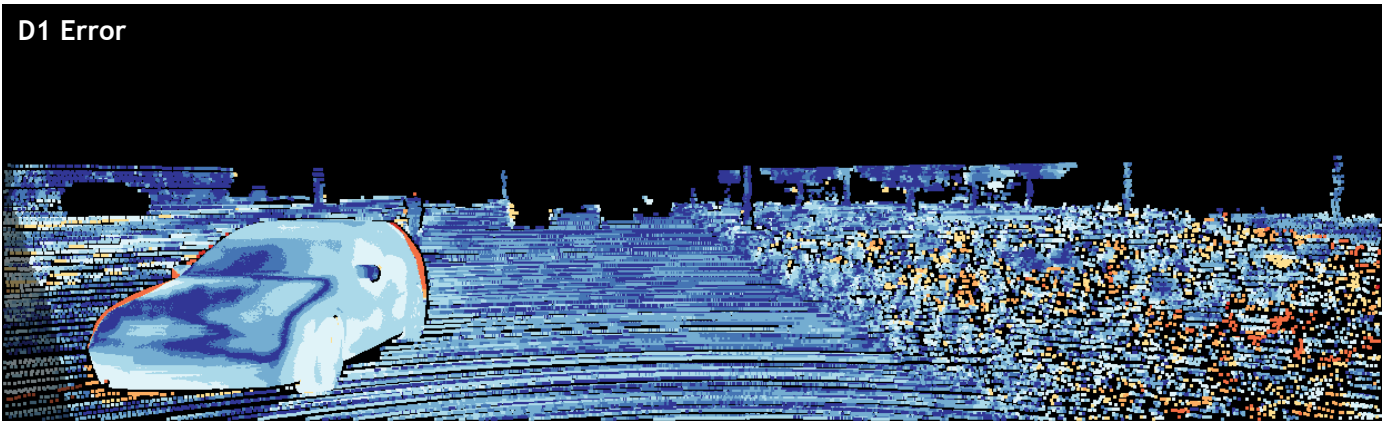
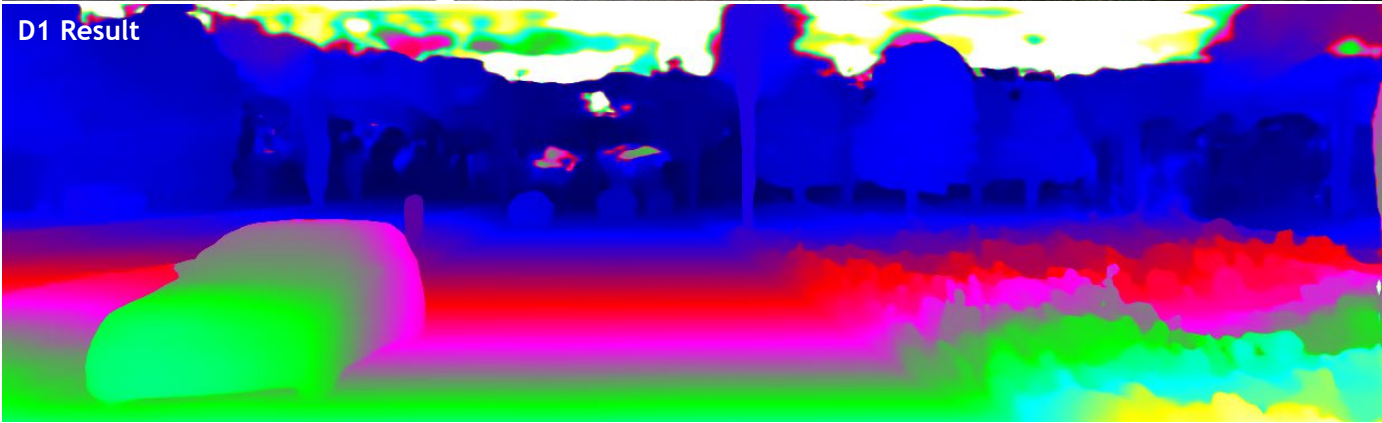




# Test Image 18

Error	D1-bg	D1-fg	D1-all
All / All	4.03	1.76	2.95
All / Est	4.03	1.76	2.95
Noc / All	3.97	1.76	2.91
Noc / Est	3.97	1.76	2.91

[This table as LaTeX](#)





# Test Image 19

Error	D1-bg	D1-fg	D1-all
All / All	0.81	0.59	0.78
All / Est	0.81	0.59	0.78
Noc / All	0.82	0.59	0.79
Noc / Est	0.82	0.59	0.79

This table as LaTeX

